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UNIVERSITIES AND THEIR PROBLEMS

UNIVERSITIES AND THEIR PROBLEMS

BY
S. R. DONGERKERY

With a Foreword by
Mahamahopadhyaya Dr. P. V. KANE
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TO
MY ALMA MATER

FOREWORD

Mr. Dongerkery's work on "Universities and their Problems" was read by me in manuscript with great interest and profit. As Registrar of the Bombay University for over seventeen years he has had very intimate connection with university affairs in all their details. In the present work he has drawn upon his own unique experience and upon his wide reading concerning the universities of India, Europe and America. He expresses his own individual opinions with candour and moderation. He deals with almost all problems that confront the Indian Universities and combines conciseness with lucidity of exposition. Though I cannot say that I agree with all his opinions, yet I feel no hesitation in stating that in forming and expressing his views on all debatable points he exhibits a high degree of balanced judgment and detachment. I have very great pleasure in recommending this work of Mr. Dongerkery to all those who are interested in our universities and their problems.

P. V. KANE

Bombay,
31-1-1948

PREFACE

I have advisedly chosen a title which allows a wide scope for the discussion of university education and the variety of problems it presents in different parts of the world, although my main intention is to focus attention on the universities of India. In spite of the great divergence in the systems of university education obtaining in different countries at the present day, one cannot fail to notice that the ideals of university education in a progressive world are converging towards a common goal. This is an inevitable consequence of the unifying influence of modern civilization, which has welded the world into one large unit with common material, intellectual, moral and aesthetic standards.

I think that the present time is opportune for the publication of a book like this, since the minds of men are now engaged in problems of post-war reconstruction in several spheres of activity, of which university education is not the least important. Before one begins to reconstruct, however, it is necessary to review the progress made in the past and take stock of the present situation, in order that one may discover the strong as well as the weak parts of the existing structure. Ideas will in all probability differ about the importance to be given to one or the other aspect of university education in the future so as to avoid the repetition of errors committed, to undo the harm already done, and to continue the edifice on sounder lines.

Like others, I have had opportunities of studying the work of universities at close quarters, and have given some thought to their problems in my own way. My object in writing this book is to throw out some suggestions in the hope that they may provide food for thought and discussion among persons who have something to do with the moulding of university education. The suggestions may or may not evoke immediate response, but I trust that they will at least raise ripples, if not waves, in the calm waters of academic thought, which may stir other minds to fruitful activity.

Before proceeding further, I owe a duty to my *alma mater*, with whom I happen to be connected in an official capacity. to make it clear that all the opinions expressed in this book are my own personal opinions, and have no connexion whatever with my official position.

Universities, whether ancient or modern, cannot be isolated from the social fabric of their time, as they are an integral part of national life. In the words of Lord Haldane, "it is in universities that the soul of a people mirrors itself." A study of the growth and expansion of universities necessarily involves a study of the social, economic and political progress of the country or region where they have sprung up.

Religion played a most important part in the birth and growth of the ancient and mediaeval universities, a part so important that, even to this day, the universities of Oxford and Cambridge, which owe their existence to the Mediaeval Church, have not been able to free themselves completely from the trammels of form which characterize all ecclesiastical institutions. In the modern universities science has taken the place of religion. The swing of the pendulum to science has been so violent that 'general culture', on which the mediaeval universities prided themselves as furnishing an unerring and effective guide to man's life and his relation to society, is in imminent danger of being blotted out of existence. If the universities are to perform their basic functions of disseminating culture and advancing research in the field of science, it is necessary to cry halt to the break-neck speed at which specialization is proceeding, and, before it is too late, to save as much as possible of the ancient ideal of liberal education, which was the moulding of individuals with a full understanding of themselves and of their place in society and in the universe.

The problems discussed in this book are of a general character in so far as they are encountered in all modern universities. They have been tackled by the universities in different ways, with or without success, according to local conditions and circumstances. I have devoted particular attention to the problems of teaching, research and administration, urgently calling for solution in Indian universities,

which have now thrown upon them the added responsibility of adjusting themselves to the new situation created by the transformation of India from a dependency into two independent Dominions.

In a book of this size it is not possible to discuss the university systems of all the countries of the world. It has been thought sufficient to deal with university education in the important countries of Europe, including the British Isles, in the United States of America and in India. For the better appreciation of the organization, administration and work of the universities in these geographical regions I have attempted to give, where necessary, a brief review of the growth of university education, indicating the development and changes that have taken place in the course of years, sometimes of centuries, and the manner in which these have been influenced by the social and political movements which make history.

Since the manuscript of this book was sent to the Press, one more university has come into existence in the Province of Bombay, with its headquarters in Poona. This is the first of the three regional universities, the creation of which has been under the consideration of the Provincial Government for some time, in pursuance of its desire to establish a separate university for each of the three linguistic areas of Maharashtra, Gujarat and Karnatak. When all these universities come into being, the University of Bombay will, for all practical purposes, become a City University and may, perhaps, continue to be one of the few universities in India retaining English as the medium of instruction for the benefit of those who do not speak any of the modern Indian languages as their mother tongue.

The bibliography included in this book indicates the extent to which I am indebted to individual writers and committees who have dealt with one aspect or another of university education in their publications. I must, however, make a special mention of a few of them who have been of invaluable help to me, and whose publications are indispensable for any one who undertakes to write a book dealing with universities. These are Abraham Flexner, A. P. Newton, Sir Charles Grant Robertson, Ernest Barker and

the authors of the Report of the Calcutta University Commission and the Report of the Auxiliary Committee appointed by the Indian Statutory Commission, 1929. For authoritative information about the universities of the British Empire and those of India I have drawn freely upon the useful material provided by the Yearbook of the Universities of the Empire (1947) and the Handbook of Indian Universities (1942).

I wish to express my deep debt of gratitude to Mahamahopadhyaya Dr. P. V. Kane, M.A., LL.M., D.Litt., Vice-Chancellor of the University of Bombay, for having very kindly read the manuscript of this book and made valuable suggestions, and also for readily acceding to my request to write a foreword.

I would be failing in my duty if I did not express my sincere thanks to Dr. P. M. Joshi, M.A., Ph.D., and Mr. D. N. Marshall, M.A., the former and the present librarians, respectively, of the University of Bombay, for the readiness with which they placed at my disposal whatever books I needed for reference from the University Library.

I wish finally to add that this book might never have been written but for the idea suggested by my wife many years ago, which, however, I could not carry out until I was able to devote two full months to the writing of it during my last holiday in the quiet atmosphere of Kodaikanal.

Bombay,
30th April, 1948

S. R. D.

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CHAPTER I

WHAT IS A UNIVERSITY?

Before embarking on the discussion of universities and their problems, it is necessary to clear the cobweb of confused ideas that has grown up around the word 'university' in the popular mind. Lecture-halls, libraries, laboratories and hostels do not constitute a university, although they are all needed for equipping a modern university. It is equally incorrect to presume that a university is so-called because it provides instruction in every subject under the sun capable of being studied. Such an assumption runs counter to the mediaeval conception that all subjects are not equally suitable for university study.¹ It is surprising that even Cardinal Newman fell into the error of describing a university as 'a place of teaching universal knowledge'.

Professor Ernest Barker has defined a university, in British theory and practice, as "an organized and degree-giving institution, intended for the study and advancement of higher branches of learning, self-governing in its nature, and, to a greater or less extent, national in its scope".² In France, the word 'université', in the singular, designates all those whom the State has authorized to teach. In the plural, it signifies the gathering together of several faculties in a single place for imparting higher education and developing culture.³ Bruce Truscot, in his stimulating book on modern universities, defines a university as "a corporation or

1. Sir Charles Grant Robertson: *The British Universities* (Methuen), p. 2.

2. Walter M. Kotschnig & Elined Prys (Eds.): *The University in a Changing World* (O.U.P.), p. 85.

3. Ibid., C. Bouglé—"The French Conception of a University".

society which devotes itself to a search after knowledge for the sake of its intrinsic value."⁴ In America, the term is loosely used to denote a secondary school and college for boys and girls, a graduate and professional school for advanced students and a 'service' station for the general public.⁵ As a corrective to this popular American idea, Dr. Lowel, a former President of Harvard, once humorously defined a university as a place where nothing useful is taught.

By far the most satisfying definition of the word 'university' has been furnished by Sir Charles Grant Robertson, who says: "The word 'university' is an English translation of the Latin word *universitas* which meant generally any community or corporation in its collective aspect. It had no reference to the range of studies, i.e., it was not a group to study everything, but a group of persons with a certain character and definable legal rights and liabilities. Gradually it came to be reserved (*sic*) exclusively to organized groups either of teachers or of scholars; by the end of the fourteenth century it meant an academic group, located in a particular place, whose corporate character, powers and privileges in connection with the higher learning, studies and teaching had been recognized by ecclesiastical and civil authority. The organization came to be identified with the place where it carried on its work and with the work itself."⁶

In short, therefore, a university is a group of persons invested with a legal status, engaged in the diffusion and advancement of knowledge. As to which of these two objects should be given greater prominence is a matter of opinion, though the modern tendency has been to lay greater stress on research, or the pursuit of knowledge, than on teaching, or the dissemination of knowledge. A university is constituted by teachers

4. *Red Brick University* (Faber & Faber), p. 45.

5. Abraham Flexner: *Universities, American, English, German* (O.U.P.), p. 45.

6. Sir Charles Grant Robertson, *op. cit.*, p. 1.

surrounded by their students, striving by their combined efforts to enlarge the bounds of knowledge, and inspiring one another with zeal for learning.

A university does not fulfil its mission by stuffing the minds of its students with chunks of facts, however useful. It has three important functions to perform, namely, (a) the transmission of culture, (b) the teaching of the professions, and (c) scientific research and the training of new scientists.⁷ The mediaeval universities of Europe were mainly concerned with the dissemination of culture through the teaching of theology, philosophy and 'arts' subjects. They did little by way of training for the professions, and scientific research was practically unknown to them. They believed that the purpose of all education was to help students to live their own lives worthily, with a full understanding of themselves and their place in, and obligations to, society. In other words, they aimed at imparting what is correctly described as a 'liberal education'.

The origin and scope of liberal education has been lucidly stated in the following passage in the Report of the Harvard Committee on General Education in a Free Society.⁸ "The concept of liberal education first appeared in a slave-owning society, like that of Athens, in which the community was divided into freemen and slaves, rulers and subjects. While the slaves carried on the specialized occupations of menial work, the freemen were primarily concerned with the rights and duties of citizenship. The training of the former was purely vocational; but as the freemen were not only a ruling class but also a leisured class, their education was exclusively in the liberal arts, without any utilitarian tinge. The freemen were trained in the reflective pursuit of the good life." Even though the institution of

7. José Ortega y Gasset: *Mission of the University*, translated from the Spanish by Howard Lee Nostrand (Kegan Paul), p. 48.

8. Harvard University Press, Cambridge, Massachusetts, p. 52.

slavery was abolished long ago, the concept of liberal education, as understood by the Greeks, has persisted, and the term is now employed to describe what is known as 'general education', as distinguished from specialized education. The distinction lies not so much in the subject-matter as in the method of approach. No one is likely to deny that even in the present age of specialization, which lays emphasis on those subjects of study which have an immediate bearing on the increase of the material comforts of life, education in the liberal arts is necessary for forming and strengthening character as well as for training the intelligence. In fact, a basic training of this nature is necessary to counteract the cramping effects of a narrow specialization.

The university of today amply discharges the second and third functions mentioned above. Society is constantly in need of trained professional men and women, whether they be doctors, lawyers or engineers. These, too, are the classes of persons from which the nation selects its leaders. As long as the training for the professions is maintained at a high level by stressing the idealism and the altruistic motive which should be ever present before the minds of those wishing to practise them, and does not degenerate into mere technical instruction, calculated to produce efficient money-making machines, society need not despair of its future. It is, therefore, all the more necessary that those who enter upon a course of professional training should have a sound basic general education to supply the leaven which will prevent their practice of the profession from descending to sordid mercenary levels.

This being the 'Age of Science', it is natural that scientific research should loom large in the foreground of the activities of modern universities. Research may be described as an intensive effort on the part of an observant and disciplined mind to reach the truth with the aid of the intellect and the devices invented by men for wresting her secrets from Nature. The search must be disinterested, and the motive selfless, the attainment

of truth being the only goal. The research worker does not start with a clean slate. At his back are the accumulated knowledge and experience of earlier workers in the same field. He may have to discard some of this previous knowledge as obsolete in the light of further experiment, and should be prepared to abandon his own pet theories and make a fresh start, if necessary. If he works in this spirit of selfless endeavour, his mission in life will, indeed, be noble. The same is true of research workers in the field of social studies and in the humanities. A university which produces and encourages research workers inspired by such high ideals cannot fail to make a lasting contribution to national life and to the progress of knowledge as a whole.

CHAPTER II

TYPES OF UNIVERSITIES

Modern universities may be classified according to certain recognized types to which they conform. Classification is not easy, however, since a number of universities possess characteristics common to two or more types, there being no single principle of division. Universities are residential or non-residential, unitary or federal, affiliating or teaching, or both, regional or national, denominational or non-denominational, according as the basis of classification is the residence of students, the relation of a university to its connected institutions, its main function, the territorial area of its jurisdiction, or the religion, creed or culture it seeks to propagate.

Unfortunately, the terms used to denote these various types of universities have not been clearly or authoritatively defined anywhere. An attempt is made here, with the help of illustrations, to describe the distinguishing characteristics of the different types.

We may begin with the residential and non-residential, which are, perhaps, the easiest to distinguish. Residence is a *sine qua non* for a student to become a member of a residential university. The outstanding examples of residential universities are Nalanda in ancient India, Oxford and Cambridge in England, and Benares, Aligarh, Lucknow, Dacca, Allahabad (as reconstituted in 1922) and Annamalai in India. Thus, in Oxford and Cambridge residence in a College or Hall, or in licensed lodgings under college supervision, for not less than six terms, is a condition precedent to the obtaining of a degree. Attendance at lectures is considered non-essential, and is not, therefore, insisted upon. The Scottish universities are non-residential, their students being day-scholars. So are the Continental universities,

London University and the majority of the Indian universities.

In a residential university the student's social life is controlled and opportunities are provided for a corporate life for students coming from distant places and different strata of society. Above all, there is a close contact between teacher and student. In a non-residential university these benefits are denied to the student, who spends a few hours each day at the university, listening to lectures, attending tutorials or working in the laboratories. His only social contacts with his co-students outside the classroom are on the playing field, in the library, at meetings of debating, dramatic, literary and other college societies and at college socials. The tendency in most of the modern universities is to provide as many of these substitutes as possible for fostering the corporate life of their students, although none of them, either singly or in combination, can confer all the benefits arising from the residential system.

A unitary university is one which carries on its work through its own departments of teaching, or through constituent colleges, the control of the teachers, the teaching, the courses of study and the entire administration being in its own hands. All these functions are completely centralized in the university.¹ In a federal university, on the other hand, the constituent or affiliated colleges are either autonomous units which have surrendered a few of their powers to the university, or enjoy considerable liberty in the management of their own affairs. In the Government of India's Resolution on Education, published in 1913, a federal university has been defined as consisting of several colleges of approximately equal standing, separated by no excessive distance or marked local individuality, grouped

1. See *Progress of Education in India*, Tenth Quinquennial Review, 1927-32, Vol. 1, p. 61, where a unitary university is defined as "one, usually localised in a single centre, in which the whole of the teaching is conducted by teachers appointed by or under the control of the university."

together as a university. The Universities of London and Wales are both federal Universities in this sense, while the other English universities are of the unitary type. The following Indian universities are also unitary: Aligarh, Lucknow, Dacca, Annamalai and Mysore. The others approximate to the federal type, inasmuch as their constituent and affiliated colleges are virtually autonomous units over which the universities exercise no more than a general supervisory control. Residential universities ordinarily conform to the unitary type, though it is not essential that they should do so. This accounts for the confusion sometimes made between the unitary and residential types.

A university which gives instruction to its students, either in its own departments or in its constituent colleges, through teachers appointed by it is called a teaching university, as contrasted with one which does not directly control the teaching but permits other institutions, such as affiliated colleges, to provide the instruction through their own teachers, the university's function being one of general supervision. All the English universities are teaching universities, although in its earlier years London University did not do any teaching at all. Most of the affiliating universities of India, at the present day, are also teaching universities to a limited extent, doing the teaching through their own departments, post-graduate or undergraduate, or through recognized teachers in the affiliated colleges and approved post-graduate institutions. There are at present only two universities in India which are purely affiliating universities without teaching functions. The affiliating universities are a peculiar feature of the Indian university system, being an economic necessity in this vast and poor country.

A university is described as regional when its jurisdiction is restricted to a geographical region or territorial area, or when it caters for the surrounding region by seeking to advance its cultural or economic life. In a way, all the affiliating universities of India

are regional in so far as their jurisdiction is conterminous with the territory of the province in which they are situated, e.g., the Universities of Bombay, Madras, the Punjab (old), Nagpur, Patna and Agra. The term 'regional university' has, however, recently acquired a more restricted meaning in Indian educational terminology, and is applied to a university serving a linguistic area. Andhra University (1926) was the first regional university, in this sense, to be established in India. The idea has received enthusiastic support in the Province of Bombay, where it is proposed to establish three regional universities to cater for the linguistic areas of Maharashtra, Gujarat and Karnatak. We shall revert to this subject in the final chapter.

The provincial universities of England are in the nature of regional universities, as they possess a local character and are rooted, as it were, in their own areas. They exercise a considerable influence over the local life of the County or District in which they are situated and depend upon local patriotism for their support. A national university is one which does not purport to restrict its jurisdiction to a single area or region, but caters for the whole nation. Oxford and Cambridge Universities, whose territorial jurisdiction is unlimited, and which have no local connexions, are national universities. Benares Hindu University may also be so described, since its jurisdiction extends to parts of India outside the United Provinces.

A denominational university is one which has as its object the propagation of a religion or creed. Oxford and Cambridge, which owe their origin to the Mediaeval Church, were until recently dominated by strong religious influences. Anglicanism was so powerful in Oxford that vestiges of Anglican forms still appear in its customs. Until 1858, when the mediaeval statutes of the Colleges of Oxford and Cambridge were abolished, religious tests were imposed on the students both on entrance and on graduation. In fact, one of the chief objects of the founders of University College,

London (1826), was to provide an institution for those who were unable to enter Oxford or Cambridge because of their religious beliefs. Benares Hindu University was the first denominational university to be established in India. Till now there are only two such universities in India, the other being Aligarh Muslim University. It is difficult to understand how the Government of India in these two instances permitted a departure from their avowed policy of keeping religion scrupulously apart from educational institutions.² Whatever may have induced the Government to sanction the establishment of these two denominational universities, they are there today, serving as a warning against the founding of new universities of their type, which restrict the membership of their governing bodies to persons professing a particular religion.³

2. See Wood's Despatch, paragraph 28.

3. See S. 9 of the Benares Hindu University Act, 1915, and S. 23 of the Aligarh Muslim University Act, 1920.

CHAPTER III

THE PLACE OF THE UNIVERSITY IN NATIONAL LIFE

Having dealt with the meaning and functions of a university, we may now proceed to consider the place which it occupies in the scheme of national education: its relation to primary, secondary, technical, vocational and adult education.

The university stands at the apex of the educational pyramid with primary education as the base. It is closely related to secondary education which largely determines the quality of its material. It can be a useful agency for the promotion of adult education, but needs to guard itself against the temptation to dabble in technical, as contrasted with technological, and vocational, as contrasted with professional, education, which are both important for the national economy, but are best handled by their own appropriate agencies. The university has to conserve all its energy for the advancement of scholarship and science, and can ill afford to fritter it away on technical and vocational education.

The process of education, like the growth of a tree or any other living organism, is a continuous one. One cannot separate higher education into two water-tight compartments and label them as 'secondary' and 'university'. "The difference between secondary and university education is the difference between immaturity and maturity."¹ Both types of education have this in common, namely, that they aim at widening the mental horizon of the student and preparing him for life so that he may satisfactorily carry out his obligations as a member of society, whatever be the station in life he may

1. Flexner: *Universities, American, English, German* (O.U.P.), p. 28.

be called upon to occupy by virtue of his abilities or his special training, or by accidental circumstances.

Since it is the secondary schools that provide the universities with their students, the quality of the students depends very much on the teaching in these schools. The universities, in their turn, influence the teaching in the schools through teachers who are recruited from their *alumni*. They also influence the curriculum of the secondary schools through their matriculation or entrance tests. In Great Britain the universities conduct scholarship tests and act as examining bodies for the schools. They prescribe the curricula on which school, and higher school, certificates are awarded even to those who qualify for them without any intention of entering a university. Whether this kind of control is in the larger national interest will be discussed later.²

Some of the universities in India prescribe conditions for the recognition of schools entitled to send up candidates for their matriculation examination and inspect them periodically. They thus indirectly influence the appointments of school teachers and the administration of the schools without, at the same time, shouldering any financial responsibility. This policy has recently undergone a change in some provinces where, by mutual agreement, the university, in practice, leaves the department of public instruction to look after the secondary schools, although in theory it is unwilling to give up its right to decide who shall be permitted to appear at its matriculation examination. Secondary schools are thus subjected to a dual control.

The secondary school has a twofold function. Its main purpose is to provide its pupils with a general education which will supply them with the moral fibre and the mental and physical equipment necessary to fight the battle of life with confidence. It also trains the more talented and ambitious among them to qualify

2. See Chapter XI.

for admission to the university so that eventually they may enter politics, or public service, or one of the learned professions, or pursue a scientific or scholastic career. The curriculum has, therefore, to be framed so as to serve both these purposes. The teacher's function is not only to impart sound instruction which will raise the intellectual level of the average pupil, but also to discover the gifted pupil and encourage him to make the best use of his talents.

Technical and vocational education are on a distinctly lower level than university education. The unfortunate example of American universities,³ which are often a mixture of institutions of university grade and vocational schools, should serve as a danger signal to those who are anxious to maintain university education at a high level. A profession is distinct from a vocation or calling, inasmuch as it is inseparable from culture and high ideals, while a vocation has utility for its chief object. An institution which allows a profession and a vocation to jostle against each other does not take long to degenerate into what is known as a 'service station' in American parlance.

Flexner is of the view that the functions of adult education cannot be discharged on a large scale by universities except by a diversion of energy and an increased complexity of machinery that cost the university too dearly.⁴ The example of the University of London does not support this statement. On the other hand, in this democratic age of equal opportunities for all, it is just and proper that the universities should carry their teaching to the men and women outside their ordinary membership, especially the masses, by such means as extension lectures, evening classes and summer schools. This seems to be the only effective way of

3. For brevity the terms 'American Universities' and 'America' are used in this book instead of 'Universities of the United States of America' and 'United States of America' respectively.

4. Flexner, *op. cit.*, p. 246.

bringing the universities into contact with the masses and making them share, even though it be in a very small degree, the nation's intellectual life, for it is next to impossible to bring the masses requiring education to the universities, as was aptly remarked by William Sewell, Fellow and Senior Tutor of Exeter College, England.⁵

Primary education is far removed from the sphere of the university, but it is of no small importance as the basic rock on which the whole educational superstructure is reared. The chief responsibility for spreading primary education lies on the State, and the efforts of less powerful agencies have little chance of success on account of the magnitude of the problem. Attempts are being made in some Indian universities to enlist the potential energy of the large student body in the spread of primary education by schemes of compulsory service. Such schemes do not find favour with all democratic bodies, owing to the element of compulsion involved in them, and even where they are adopted are certain to present innumerable practical difficulties. A far smoother course would be to make provision in the regulations of universities that a student who serves as a primary teacher for a stated period will be exempted from the keeping of one or more terms of the degree course or from appearing in one or two papers at the examination.

The direct contribution which the universities make to national life is by supplying the nation with leaders of thought and action in the social and political spheres. They are, therefore, rightly described as the 'nurseries' of leaders. Besides moulding character and creating a right sense of values, university education teaches one to think for oneself, arrive at independent decisions and communicate one's thoughts effectively to others, all of which are qualities that go to make a leader.

5. Alfred Lawrence Hall-Quest: *The University Afield* (Macmillan, New York), p. 8.

As universities play an important part in the life of the nation, it is natural that they should look to the State for financial support, especially as their income from fees, endowments and other sources is hardly ever adequate for their upkeep. It is, at the same time, necessary to see that their independence is not affected by reason of such assistance. In so far as the State makes money grants to a university, it is bound to see that the money is utilized for the legitimate purposes of the university, and that the benefit of the education given is made available to all without distinction of race, creed or community. The university should, however, be left free to conduct its internal administration and carry on its academic work without interference from the State.

CHAPTER IV

UNIVERSITIES IN ANCIENT INDIA AND MEDIAEVAL EUROPE

I

Speaking of India, it may be surmised that, before the Aryans came to the country, there were no educational institutions of the type which we describe as a university in our own day, since there is no record of such institutions. The Aryans showed considerable powers of organization, and had a well-established system of higher education in which we see glimmerings of the idea of the modern university. They attached colleges and schools for advanced study to famous temples, and provided therein free education in both religious and secular subjects.

Religion was the guiding factor of life in the Vedic times. The *ashrama* or *gurukula* was the centre of education where the *guru* (teacher) imparted to his *shishyas* (pupils) the ancient knowledge treasured up in the Vedas. The subjects of study were varied, and included religion, literature, logic, mathematics, medicine, astronomy, archery and the principles of war.¹ The influence which the teacher exercised over his pupil, both by example and by precept, during the latter's residence in the *ashrama*, where they came into intimate contact with each other, was of an abiding character, and shaped the pupil's future life. Under modern conditions of life such contacts between teacher and pupil are not easy to establish. The *gurukula* was more like a residential college than a university, since there was no association of teachers there. The opportunity for

1. Basu: *University Education in India* (Book Emporium, Calcutta), p. 2.

such association was, however, provided by the conferences of teachers and scholars which were frequently organized for the exchange of views by philosophical discussions and the establishment of personal contacts. These conferences, known as *parishads*, also granted recognition to pupils who appeared before them to exhibit their learning, and in this manner performed one of the functions of a modern university.

Takshasila or Taxila, as it is better known to us, the most important of the earliest known seats of learning in ancient India, thus developed into a university centre in the seventh century B.C. Situated in the province of Gandhara (Kandahar) it was known for its great medical school, and flourished as a university for well-nigh ten centuries, attracting scholars from distant cities and princes from different parts of India. The great Panini, renowned grammarian and scholar, was one of its distinguished *alumni*. Ujjain University acquired a reputation for the teaching of mathematics and astronomy. Other educational centres sprang up at Valabhi and Vikramasila, and later at places of pilgrimage like Benares and Kanchi (Conjeevaram), where learned Brahmins congregated. The University of Nalanda in the north and that of Kanchi in the south of India were among the great centres from which Indian culture and learning radiated all over the vast country.

When Buddhism had come to stay, the *viharas*, which started as places of meditation and study of the religious orders of the Buddhists, developed into centres of learning, and later on, into full-fledged universities to which lay students were attracted by the fame of the teachers residing there. The *viharas* approximated more to the universities than the old *gurukulas* which they replaced, inasmuch as they had not one teacher, but many. With the spread of Buddhism beyond India's frontiers, these *viharas* began to attract students from countries like Tibet, China and Korea, and attained international fame. Accounts of some of these have been

given by Yuan-Chwang and I-Tsing, of whom the latter spent ten years at Nalanda. This University flourished till the thirteenth century A.D. when it was destroyed by invaders.

As one of the most famous of the ancient Indian universities, Nalanda calls for a more detailed description than the others, if only to indicate the progress that had been achieved in the field of higher education in India centuries before the mediaeval universities of Europe came into existence. Nalanda, in Bihar, was one of the many places where the great Buddha carried on his religious preaching. The Emperor Asoka built a temple and a *vihara* there. Sakraditya (Kumaragupta I), a devout Hindu, founded the *Sangharama* or College of Nalanda as a residential university in or about 425 A.D. His successors built more *sangharamas* until there were eight of them. They were built in rows, and one of them was four storeys high. The University had three extensive libraries and a tall observatory, the upper rooms of which appeared to be lost in the clouds, according to Yuan-Chwang's own description. The University itself was surrounded by a brick wall. An outsider seeking entrance to it as a student had to carry on discussions with, and satisfy, the gatekeepers (*dwarapalas*) who were all learned men. This was equivalent to the matriculation test, and a very stiff one, too, according to modern ideas! Theology and philosophy were compulsory subjects of study at the University, and the various systems of logic came next in importance. Astronomy, grammar and medicine were also among the subjects taught at Nalanda, and Tantra was, perhaps, a popular one.

Among the teachers who shed lustre on the University were the famous pandits, Nagarjuna, Vasubandhu, Dinnaga, Santaraksita, Dharmapala, Silabhadra, Kumarila, Santideva, Padmasambhava, Kamalasila and Yuan-Chwang. These pandits were known for their erudition throughout the length and breadth of India. As many as one thousand pandits are said to have re-

presented Nalanda in the assembly convened by Sri Harsha at Kanyakubja to examine the thesis of Yuan-Chwang.

A knowledge of Sanskrit was demanded of all students at the University. There were no formal lectures, but the teacher helped each pupil by individual instruction and guidance. The pupil, in his turn, helped the teacher in the performance of his religious duties, in consideration of the instruction given by the latter, as it was not customary to charge any fee for the tuition. The pupil was greatly benefited by listening to the discussions which proceeded among the pandits, day in day out, and by copying out ancient manuscripts under the teacher's direction. The pupil had frequently to collect alms for his teacher, and was also expected to remunerate him according to his means at the end of his educational course.

The average age of students entering the university other than the *bhikkus* (novices) was twenty years, while the *bhikkus* entered it between the ages of thirteen and fifteen. Amusements were conspicuously absent. Nalanda, with its ten thousand students and teachers had, perhaps, the largest student population of all the ancient Indian universities, since its doors were open to students of every faith and it gave instruction in a vast variety of subjects, unlike some of the other contemporary universities which specialized in the sciences. Its reputation attracted students from different parts of Asia, and it sent out its own scholars to foreign countries like China, Japan and Ceylon. It was an international university in the true sense of the term.²

II

The mediaeval universities of Europe have been a powerful influence in moulding the academic thought

2. See H. D. Sankalia: *The University of Nalanda* (B. G. Paul & Co., Madras), for further details about the University.

and life of the countries of Europe. The Greeks and the Romans had no universities in the modern sense of that word. One could truly say that so far as Europe is concerned the idea of a university is to be traced back to the Middle Ages. There, too, as in India, religion provided the impetus for the establishment of universities. The friars and monks were the pioneers of academic thought. The mediaeval universities derived their status, authority and privileges from the Church. Theology and canon law were the main subjects of study in the beginning. Apart from these, the basis of education in the early Middle Ages comprised the seven liberal arts: grammar, rhetoric, logic, arithmetic, geometry, astronomy and music. The first three were known as the *trivium* and the last four as the *quadrivium*. Other 'arts' subjects like philosophy, Greek and Latin which helped to train and broaden the mind came to be added later.

The earliest universities to be founded were those of Paris, Bologna and Oxford (1167 A.D.). The Universities of Prague (1348 A.D.), Vienna (1365 A.D.), Heidelberg (1386 A.D.) and Erfurt (1392 A.D.) were based on the same model. The main function of all these universities was the transmission of culture, or the ideology about the world and humanity, which was then prevailing so that their students might learn to live the 'good life' on a high intellectual plane. Save the profession of the priest, there were hardly any learned professions as we know them today. The universities, therefore, did not provide any professional training. The natural sciences being still in their infancy, there was not much scope for 'research' which is the life-breath of the modern university. The mediaeval university had no laboratories, libraries or museums. As Pasquier puts it, it was built of men (*bâtie en hommes*).³ Some of the mediaeval universities achieved a reputa-

3. C. H. Haskins: *The Rise of Universities* (Peter Smith), p. 5.

tion which spread far beyond the country in which they were situated and they looked with jealous eyes upon the creation of new universities, even going to the length of invoking the aid of the law to prevent new universities coming into existence without Papal or Imperial authority. Some universities like Bologna were corporations of scholars, others like Paris and Oxford were corporations of teachers.⁴ By the Middle Ages there were about eighty universities in Europe, among which the best known were those of Paris, Bologna, Montpellier, Padua, Vienna, Prague, Leipzig, Coimbra, Salamanca, Cracow and Louvain.

The students were poor, but eager to learn. There were few books and no formal lectures. The students benefited by their contact with the teachers, who were frequently engaged in learned discussions on philosophical topics much in the same way as the students of the ancient Indian universities. Athletic exercises were forbidden, as the Church did not look upon them with a kindly eye, but this did not prevent the students from becoming turbulent, lawless and even licentious at times.

Bologna University, in northern Italy, was the model of university organization in southern Europe as Paris University was in northern Europe. It was noted for the revival of the teaching of the Roman law and could boast of teachers like Irnerius, who was considered to be the most famous professor of law in the Middle Ages. Paris, which developed from the cathedral school of Nôtre-Dame into a flourishing university, became famous in the time of Abelard who drew large numbers of students to it by his reputation as a great teacher. It became the recognized abode of learning. Hence the old saying: "The Italians have the Papacy, the Germans have the Empire and the French have learning."⁵

4. Sir Charles Grant Robertson: *The British Universities* (Methuen), p. 5.

5. Haskins, *op. cit.*, p. 28.

The University of Oxford was founded in or about 1167 A.D. in consequence of the quarrel between Henry II and Thomas à Becket, which led to the withdrawal of the English students who were then studying at the University of Paris. Cambridge University was established in 1209 A.D. These are the oldest of the English universities, and claim to be the training ground of statesmen, soldiers and civil servants who have helped to make England what she is today. Conservative in many things, these two great residential universities have made a distinct contribution to the national life of England. They are known for their 'tutorial system', which establishes a close personal contact between the undergraduate and his tutor.⁶ In spite of their failure to keep pace with some of the modern city universities in the teaching of modern subjects like economics and statistics and in scientific research, they still continue to attract the best students, not only from the British Isles, but from distant countries like America, India, China and Australia. In a true sense they are national universities with an international reputation. Being well-endowed, they have always maintained a reputation for independence, worthy of emulation by other universities.

6. The system in operation at Cambridge is better known under the name of 'supervision'. The reader's attention is invited to the group of four articles in the *Universities Quarterly*, Vol. 2, Number 1, November 1947, pp. 24—47.

CHAPTER V

THE UNIVERSITIES OF MODERN EUROPE

An attempt has been made here to give a brief account of the universities of Germany, France, Italy and Soviet Russia. For obvious reasons the account relates to the state of things as it existed before the commencement of the Second World War.

University education in Germany began in the middle of the fourteenth century, towards the end of the Middle Ages, with the founding of the University of Prague in the year 1348 A.D. The Universities of Vienna, Heidelberg and Erfurt, which were established in the latter half of the same century, also followed the model of the mediaeval university in organization and teaching. The influence of the Church was strong in all these universities.

The modern Universities of Cologne, Hamburg and Frankfurt have not departed from the form of the mediaeval university, although that of Berlin signifies a departure from the old tradition. It was primarily intended to develop knowledge and encourage scholars and scientists rather than to train young men for the professions and the public services. During the last 150 years the German universities have shown a splendid record of research and teaching. There are in all about thirty universities in Germany, including the *Technische Hochschulen*. Since the University of Berlin came into existence in 1809, the earlier ones followed its example and modernized themselves. All these universities are virtually governed by the Ministry of Education of the states in which they are respectively situated.

The German professor enjoys considerable freedom so long as he directs his attention to the preservation and advancement of knowledge. Side by side with his teaching work, he is permitted to make profit from in-

dustry. Instruction in the German universities takes three forms, namely, (1) lecturing to large classes, (2) guiding practical exercises, with the co-operation of assistants, and (3) conducting seminars. The university is chiefly a centre of research and, in a slightly lower degree, a training ground for administrators. Students are trained in the fundamentals of a subject, the details being left to their own initiative to tackle when they are confronted with problems later on in life. They enjoy a large measure of freedom and are treated as persons grown to man's estate. The student is at liberty to choose his own teacher and to migrate from one university to another as he thinks fit. The result is that the German student, unlike his English counterpart, does not owe loyalty to any single university, while the best student is able to go for guidance and instruction to the ablest teacher, wherever he may be. One great disadvantage of frequent migrations of this kind is that personal contacts between student and student and student and teacher are of the most casual sort, and hinder the growth of traditions and *esprit de corps*, which are remarkable features of British universities like Oxford and Cambridge.

The important faculties in the German universities are those of philosophy, including arts and science, medicine, law and theology. The standard of entrance set up by the universities is rather low, and uniformity of standards between different universities and different subjects in the same university is lacking. Attendance is not enforced strictly. The universities regulate and conduct the doctorate examination which comes at the end of the university course, while the State holds examinations for entry into the public services and the vocations.

The University of Paris was the pride of France in the Middle Ages. It used to be said that the Pope and the University were the two lights of the world. The university movement does not appear to have gained much strength in France on account of the hold that

officialdom has on the educational system of that country. In the year 1896 as many as seventeen universities were created in France, but this sudden impetus received by the movement was mainly due to the anxiety of the nation not to be outdone by the Germans, who had already forged ahead and raised their fatherland to a very high pitch of efficiency as a first-rate military power and one of the most advanced nations in Europe. The well-equipped, official educational institutions of France, which confer diplomas on their successful students and lay down the standards of education, leave little scope for the universities in that direction. The examination system has got a hold on the people like a giant octopus, and has crushed all educational freedom and initiative. There is no exaggeration in the oft-quoted saying that there is one period of the year when half of France is engaged in putting the other half through examinations. Needless to say, one cannot hope to profit much by the study of such an inelastic educational system.

In Italy, the mediaeval universities played an important part in the spread of culture far and wide. Both teachers and students enjoyed considerable freedom in their work. Branches of study, such as literature, law, philosophy, mathematics, history and the natural sciences were popular, and the universities encouraged the development of these subjects. The work of the Italian universities continued on these lines from the time of the establishment of the University of Bologna until the eighteenth century.

With the advent of political freedom, by a strange irony of fate, the freedom of the universities came to an end. The Law of 1859 enjoined uniform programmes and regulations on the universities, and their teachers found their hands tied. It was only after the reform of 1927 that their old liberty was restored to the universities, and they began once again to enjoy full autonomy in teaching and in the framing of their own statutes and regulations.

The Italian universities may be grouped under the

following three heads: (1) those which are controlled entirely by the State, (2) those which are partially under State control, and (3) those over which the State has the minimum control and are consequently known as 'Free' universities. The Italian State believes in unifying the control of all education. It exercises the right to nominate rectors and the presidents of faculties, and compels the professors to take the oath of allegiance. In matters of internal administration and in all purely academic matters the universities have a free hand. The students take an active part in political movements, as the universities are expected to serve as schools for the formation of the character and spirit of the youth of the nation and the personality of the new Italian.

The history of university education in Russia dates from the establishment of the University of Petersburg in the year 1730. This University was closed down, in 1790, as superfluous in view of the existence of the Academy of Science in the same place. The University of Moscow, founded in 1759, was mainly intended to train lawyers and medical men. At the beginning of the nineteenth century, new universities were established at Jurev (Dorpat), Kazan and Kharkov. The University of Petersburg itself was revived in 1819. These universities had faculties of law, medicine, philology, history and mathematics, and in some of them there was also a faculty of oriental languages. Their organization followed the German pattern, with an elected rector, a board of professors and a senate.

Before the Revolution the students of the universities were drawn from the gentry, the middle and the trading classes, the clergy and the families of professional men and government officials. There were no students from the homes of peasants and workers, and there were few women students. Women were actually excluded between 1905 and 1916. There were restrictions on the number of Jews that could be admitted, and some of the other national minorities were totally

excluded. The 1917 October Revolution brought about drastic changes in this state of affairs and, since 1931, the policy has been to make higher education subserve industrial production. After 1917, the universities became fully democratic bodies to which the entire student population was admitted free of charge. There was not even an entrance examination, and women became eligible for admission in the same way as men. The number of scholarships was increased. The aims of higher education were declared to be the training of specialists in all branches of practical activity and of scientists to work in the scientific, technical and industrial departments of the Republic, and the bringing of scientific knowledge to the peasant and the proletariat. The faculties were reorganized, and greater emphasis was laid on technological subjects and on the training of teachers.

As a result of the changes thus introduced, by the year 1928, fifty per cent of the students at the universities belonged to the working and the peasant classes, especially in the industrial and technical courses. The Communist universities concentrated on the training of party workers and leaders. Technical training and industrial production were brought into close relation by requiring students to spend half the period of their study in factories. Laboratory and practical work was given more importance than mere theoretical instruction. Part-time education and correspondence courses were encouraged. The chief aim of the Republic in Soviet Russia has been to make higher education an instrument in the building up of a socialist society, and to further the interests of the workers and the farmers. The socialization of industry and the foundation of large-scale enterprises in the fields of agriculture and industry have created the need for an army of specialists, familiar with the latest achievements in technical science, and devoted to the welfare of the working classes. The universities have been reorganized and equipped to satisfy this need.

CHAPTER VI

THE UNIVERSITIES OF GREAT BRITAIN AND IRELAND

I

England has eleven universities and five university colleges. The difference between a university and a university college is that, while the former can only be created by Royal Charter or by an Act of the Legislature, and has the right to confer its own degrees, the latter has no such power. Scotland has four universities. Wales has one university with four constituent colleges, and Ireland has three universities. The Scottish universities have developed on lines different from those of England, and follow the continental model. The University of Wales which was created by Royal Charter, as recently as 1893, differs from the provincial universities of England and conforms to the Scottish type. The Queen's University of Belfast in Northern Ireland is modelled on the English provincial university. The University of Dublin (Trinity College) and the National University of Ireland belong to the Irish Free State, which became a dominion in 1921.

The English universities are broadly divisible into three types, which may be described as 'national', 'city' and 'provincial'. They may also be classified as 'residential' and 'non-residential', if a different principle of division is adopted. The Universities of Oxford and Cambridge fall in the category of national universities, as they have a wider jurisdiction than the provincial universities, and draw their students from a much wider circle. They also deserve the epithet 'national', as they are the most ancient of the English universities and have made a valuable contribution to the national life of England by maintaining high intellectual standards through

the centuries and completing the training of young men, mostly coming from the Public Schools, for political life and the learned professions.¹ They are "institutions of learning in the finest and highest sense of the term, national bulwarks against all that is frothy, shoddy and paltry in academic life."²

We prefer to describe the University of London as a 'city' university, because it is of such a complex, and almost amorphous, character as to be *sui generis*—defying classification. All the other eight universities (with, perhaps, the exception of Reading) may be labelled as 'provincial' because they are primarily intended to serve the needs of the region in which they are situated. They are also sometimes described as 'civic' universities. Reverting to the other classification, Oxford, Cambridge and Reading are 'residential' universities, and the rest 'non-residential'.

Within a short time after its establishment in 1167 A.D. the University of Oxford acquired a reputation which placed it in the same class as the well-known mediaeval Universities of Bologna, Paris, Salerno and Montpellier. In 1209 A.D., owing to a dispute between the town and the gown, a number of teachers from Oxford migrated to Cambridge and founded an educational centre at the latter place, which developed into the University of Cambridge. Both these universities have, from the date of their foundation to this day, maintained a continuity of tradition and a breadth of outlook which have invested them with the character of national institutions. Oxford is more conservative than Cambridge. They have both been strongholds of aristocratic and wealthy England, but the distinguished scholar and the brilliant student find a warm welcome at both places, irrespective of their social status or financial condition.

1. H. A. L. Fisher: *The Place of the University in National Life* (O.U.P.), p. 4.

2. Flexner: *Universities, American, English, German* (O.U.P.), p. 266.

Oxford and Cambridge differ from the other types of English universities in their 'tutorial' system and their residential character. Under the tutorial system each undergraduate has his own tutor or supervisor, who is a fellow of his own college, interviews him from time to time, supervises his work and looks after his welfare generally. In this manner, a personal relationship of a very beneficial character is established between the two, such as existed between the *guru* and his *shishya* in the ancient Indian *gurukula*. The periodical and frequent exchange of views and intimate discussion of problems in the privacy of the tutor's study or home, affecting not merely the subjects of study but life in general, the valuable advice of an experienced scholar who can help the eager but immature undergraduate to think for himself and, above all, the informality of the entire relationship are difficult to improve upon as methods for moulding a young man's mind and character at a very impressionable period of his life.

The residential character of Oxford and Cambridge Universities has been rendered possible by what is known as the 'collegiate system' which originated in the University of Paris. The college is the unit of residence as well as of education. Each college has its fellows or teachers who, besides lecturing to the students of the university as a whole, give personal guidance and instruction to the students of the college. The teachers and the students join together in a common life.³ There are about twenty colleges in each university. Chronologically, the universities preceded the colleges, which were really started as dormitories. The fellowships were, at first, research posts. The colleges, in due course, became teaching centres, which almost overshadowed the universities. They had begun to spring up late in the thirteenth century, and the demand for them as well as the willingness of founders

3. Walter M. Kotschnig & Elined Prys (Eds.): *The University in a Changing World* (O.U.P.), p. 111.

to supply the need were largely inspired by religious controversies. It was mainly to save young men intended to be trained for the clergy from the Wycliffian heresy that these academic shelters, under the superintendence of Masters, were brought into existence. In the words of Mr. G. M. Trevelyan, "the rapid growth of the College system brought about an improvement in morals and discipline, and a civilizing academic life, for which later generations of Englishmen stand deeply in debt to the Oxford and Cambridge of the late mediaeval period."⁴

The colleges have an existence which is almost independent of the universities except for the fact that before entering a college every student has to satisfy the matriculation or entrance requirements prescribed by the universities. They hold and manage their own properties and endowments, elect their own officers, admit undergraduates, make rules and enforce discipline among their own members. The governing body of each college is constituted by its fellows, with the warden, master, president or principal as the administrative head. The teaching is mainly carried on by the fellows who are sometimes also university lecturers. All lectures are inter-collegiate. Though autonomous in most respects, the colleges have given up some of their powers to the universities, the majority of whose members belong to them. Thus, while the colleges appoint their own tutors, the universities appoint the professors, readers and demonstrators, whose lectures are open to all. This system has the effect of conferring a federal character on the universities.

Attendance at lectures is entirely voluntary. Each member of the university, post-graduate or undergraduate, must necessarily belong to a College or Hall, or to the Society of Non-Collegiate Students, as residence in a College or Hall, or in licensed lodgings under college supervision, for not less than six terms, is a con-

4. *Vide, English Social History* (Longmans), p. 55.

dition precedent to the obtaining of a degree.

There is a mistaken impression in some quarters that Oxford and Cambridge are universities for the 'classes', as opposed to the middle class and the proletariat. Many of their students come, no doubt, from well-to-do families, since the cost of residence in them is proportionately higher than in any of the provincial universities, in spite of the terms being shorter by six weeks in a year. There are, nevertheless, as many poor students in receipt of scholarships at Oxford and Cambridge as at the younger universities. The students, too, mingle without any trace of class or wealth consciousness and show great *esprit de corps*, since student-life there is organized on essentially democratic lines.

Being primarily concerned with the dissemination of culture and the imparting of a liberal education, as contrasted with the teaching of specialized courses, in accordance with the traditions handed down from the Middle Ages, neither Oxford nor Cambridge has kept pace with the modern universities in providing facilities for the study of new subjects, whether in the domain of social or of natural science. For example, even as late as the year 1914, economics as a subject of study was not regarded as sufficiently important to be included in the degree courses at Oxford. Only a diploma could be taken in the subject, and there was not even a college tutor. Even in 1930 the library facilities and teaching staff were inadequate in that subject, while the student of the London School of Economics had far greater opportunities.⁵ These deficiencies are being fast remedied, but, even so, it will take some years before Oxford University can come up with the London School of Economics so far as economics is concerned. In the field of scientific research, too, though distinguished men of science have graced the chairs of Oxford and Cambridge in the past, the facilities in these universities, as compared with those available in Lon-

5. Flexner, op. cit., p. 289.

don and in some of the provincial universities, leave much to be desired. Between the two, Cambridge has shown greater initiative. We must not, at the same time, forget the achievements which redound to the credit of Oxford and Cambridge in the shape of the monumental English Dictionary in one case and the no less scholarly studies in modern history in the other.

II

The University of London obtained its Charter in 1836. It was created as a purely examining body 'to perform all the functions of the examiners in the Senate House of Cambridge'. The teaching was, at first, confined to University College and King's College, and only the students of these two colleges were admitted to its examinations. The examinations were later thrown open to other institutions in the United Kingdom and in the Colonies. The University itself did not, however, do any teaching, but continued to test candidates educated elsewhere. University College had been founded in 1826 with a view to providing an institution for those who were prevented from entering Oxford or Cambridge by their religious beliefs or poverty. It eschewed all religious tests and fixed its fees low enough to bring university education within the reach of middle class families who could ill afford to pay the heavy college fees or cope with the extravagant mode of life at Oxford and Cambridge. The College included the teaching of modern subjects, comprising natural science, and of professional courses in medicine and law, which were lacking in the curricula of the older universities. King's College, London, was started in 1829 as a rival institution with the same object, but with the further idea of making the tenets of the Church of England an essential part of university education. Both University College and King's College were day colleges, and continued as such until they were incorporated in the University of London in 1905 and 1908 respectively. In

1858 the University was authorized to examine for a degree any student who might present himself for examination irrespective of where or how he had studied. This was the origin of the 'external side' which continues to this day.

The University of London, therefore, confers its degrees in two different ways. It confers 'internal' degrees on those who have worked as full-time students in recognized institutions, or under recognized teachers, and 'external' degrees on those who submit themselves to its examinations without having undergone a regular course of study. The external side is a boon to those who are desirous of obtaining an academic qualification, but are unable for economic or other reasons to attend the regular university courses. Howsoever good the syllabus prescribed for the external student, and however stiff the external test, they are poor substitutes for the personal contact between teacher and student and the corporate life from which the internal student derives benefit. Hence the marked difference in the quality of the two kinds of degrees, which becomes conspicuous when a selection has to be made between competitors for appointments to administrative posts in the public services or to teaching posts.

As pointed out earlier, the University of London, with its complex constitution, is a conglomeration of a number of heterogeneous institutions, lacking cohesion and unity of purpose, the result of historical accident rather than deliberate design. It has been aptly described as "a collection of universities of different types and with very different traditions, rather than a university itself."⁶ The accuracy of this description is brought home when one visualizes the seventy different institutions included within the ambit of the University, of which only two are colleges and the rest consist of research institutes, Schools, Hospital Medical Schools and institutions with recognized teachers, all autonomous

6. H. G. G. Herklots: *The New Universities* (Ernest Benn), p. 4.

organizations. The 'Schools', numbering about three dozen, form the core of the University, which appoints their professors and readers and allocates funds to them. The 'Schools', however, administer their own funds, the University exercising a general supervision over them and their work through its inspecting machinery. Outstanding among the research institutes are the Institute of Historical Research, the School of Oriental and African Studies, the Francis Galton Laboratory and the Institute of Hygiene and Tropical Medicine. The most important of the 'Schools' are the London School of Economics and the Imperial College of Science and Technology. The University is thus a federation of disparate units, not unlike the British Empire, to compare small things with great.

The teachers fall into four categories, viz., (1) professors and readers, appointed by the University, (2) junior lecturers and demonstrators, appointed by the Schools, (3) recognized teachers, appointed by the Schools, and (4) unrecognized teachers. Recognition is valuable both to the teacher and the student, since it confers a certain status on the former, and only students taught by recognized teachers in institutions other than schools can appear at the examinations for 'internal' degrees. The University is really external to the Schools, consisting as it does of persons representing outside bodies as well as its constituent institutions. The governing bodies of the latter consist almost entirely of persons unconnected with them. The London School of Economics is mainly an undergraduate institution with students working for an undergraduate degree or diploma. It has a much smaller number of research students working for a master's or doctor's degree. The instruction given in the London hospitals is practical, but lacks a scientific background, as the staff is not recruited with a view to research, as in some of the German and American universities. Further, many of the students themselves are not university students, but persons desirous of obtaining the diploma of the Con-

joint Board.⁷

Residence is not compulsory, but the colleges maintain hostels for their students as also athletic grounds, clubs and unions which provide opportunities for corporate life. The students of the different colleges mix with one another in the University's sports' clubs and unions.

III

The Mechanical and Industrial Revolutions and the Reform Act of 1832 gave a new direction and vigour to the university movement in England. The transformation of the country from an agricultural to an industrial life shook its very foundations, and caused the minds of men to turn from the humanism of the classics and the scholasticism and philosophy of the Middle Ages to the practical needs of a machine age, with new social and economic problems, and the prospect of a scientific age which held out promise of the comforts of a refined material civilization and bright hopes of social justice. Politicians and leaders of thought bestirred themselves to think of the ways in which the country should meet the needs of the middle classes and the new class of industrial workers who till then had been without any voice in the government of the country. Religion was fast losing its grip on educational institutions and the natural sciences were claiming the energies of workers in the intellectual field.

The older universities were far removed from the progressive life of the community, and were outside the reach of the lower middle and the working classes on account of the expense involved in residence both at Oxford and at Cambridge. The shackles of the Church, to which they had been accustomed for centuries, were still clinging to them. Their conservatism held them fast to the moorings of the classical tradition from which they found it difficult to cut adrift and put out to sea to

7. Flexner, *op. cit.*, p. 243.

explore the uncharted expanse of science. They did not show any enthusiasm for the study of natural science and new subjects like foreign languages, modern history and economics. Research and post-graduate work were alien to them, as they were busy training up politicians, priests and leisured gentlemen. The Universities of Oxford and Cambridge were like still backwaters where the waves of a surging national life, which were then sweeping all over the country, produced no more than a few gentle ripples.

It was in circumstances like these that the provincial universities of England came into existence. Durham University, founded in 1832, four years before London, led the way. Today, England has eight such universities, the other seven being Manchester, Birmingham, Liverpool, Leeds, Sheffield, Bristol and Reading, all of which combined to return two members to the British Parliament.⁸ Almost all of them began their careers as university colleges for the teaching of science and technology, and added new faculties like arts and medicine as they progressed. All, save the University of Reading, are situated in populous industrial centres. Manchester and Liverpool are in Lancashire, Sheffield and Leeds in Yorkshire, Birmingham in the Midlands, Bristol in south-west England, Reading in the south of England and Durham in north England. Local patriotism has been responsible for liberal endowments by industrial magnates to many of these universities.

The Mechanics Institute, founded in Manchester in 1824, which grew into a real technical school under J. H. Reynolds in 1879, became the nucleus of the Manchester College of Technology. The Federal Victoria University, which included the constituent colleges of Liverpool and Leeds, was established in 1880. These Colleges broke away later from Victoria University and obtained independent charters in 1903 and 1904 respectively. Victoria University was transformed into

8. The representation of the Universities in Parliament was abolished this year.

the unitary University of Manchester in 1903. Birmingham University was created in 1900 as a unitary university. Sheffield and Bristol followed in 1905 and 1909 respectively. Reading University came into existence in 1926. In addition to these eight provincial universities, there are university colleges at Nottingham, Southampton, Exeter and Hall, which may some day grow into full-fledged universities.

These provincial universities do mostly undergraduate work. They appoint external examiners along with internal ones for their degree examinations. They do not neglect advanced work, but they have no system of seminars, and as the time of their teaching staffs is largely taken up in lecturing to large classes of students there is little scope for contacts between teacher and student and students *inter se*. These universities specialize in science and technology. The clinical instruction imparted by them is not worth mentioning. They are attempting to introduce the residential and tutorial systems. Their provincial character is at once a source of strength and weakness. They are backed by local patriotism, and wield a powerful influence in the locality where they are situated. On the other hand, the student gets no opportunity of coming into contact with students from other parts of the country.

IV

Three of the four Scottish universities owe their origin to Papal Bulls, and were founded for the purpose of training up men for the ministry. The subjects taught therein were theology, canon and civil law, logic and philosophy. St. Andrews was established in 1411, Glasgow in 1451 and Aberdeen in 1494. Edinburgh University, the youngest of them, was founded by the Town Council as long back as 1583, and was practically the first university to interest itself in modern extensions of knowledge. Despite efforts to remodel them by legis-

lation in 1858 and 1889, they have to this day retained their national character and sentiment. Though they approximate more to the German than the English model, they have not altogether escaped the influence of Oxford and Cambridge.

There are striking dissimilarities between the Scottish and the English universities. The former are non-residential and do not, therefore, exercise any control over the social life of their undergraduates. They are more democratic and less expensive than the older English universities, and offer greater facilities to the poor student. They work in close co-operation with the citizens who take a hand in their administration. They are less wealthy than the English universities and colleges.

One remarkable feature of the Scottish universities, which might well be copied by those of England and India, is their mutual recognition of one another's courses of study, which enables students to migrate from one university to another without loss of the terms kept by them. There is, however, one restriction on migration, namely, that the student must have spent at least two out of the prescribed course of three years at the university from which he wishes to obtain his degree. There is no tutorial system, as in Oxford and Cambridge, but regular attendance at prescribed courses of lectures is insisted upon. The professors are too much engrossed in formal lecturing and administrative work to find time for research. The universities have set up Students' Representative Councils for conducting the students' social activities and representing their views to the universities whenever they desire to do so.

The University of Wales was created by Royal Charter in 1893. It has four constituent colleges, at Aberystwyth, Bangor, Cardiff and Swansea, each of which is managed like a university in miniature. The constitution of the University is of the federal type, differing from that of the modern English universities.

The university movement in Ireland presents a

picture of retarded growth for which religion, politics and the predominantly agricultural occupations of the people are responsible. The attraction to Oxford and Cambridge of the better type of students, whose parents had received their own education in England was mainly responsible for the slow progress of Irish university education. Trinity College, Dublin, which later became the University of Dublin, was founded in 1592. Between that date and the founding of Queen's College, Belfast, in 1849, there is a gap of more than two centuries and a half. In 1850 a federal university, called Queen's University, with three constituent colleges at Belfast, Cork and Galway was established. This gave place to the Royal University of Ireland in 1880 which, in its turn, was abolished in 1909 and replaced by the National University of Ireland. Queen's College, Belfast, was, at the same time, converted by a charter into the University of Belfast. A new University College was founded in Dublin which, with the Queen's University Colleges at Galway and Cork was merged into the National University of Ireland. There are, therefore, two universities in the Irish Free State today, viz., Trinity College (Dublin University) and the National University of Ireland. The University of Belfast, founded on the pattern of the English provincial universities, is the only university in Northern Ireland.

CHAPTER VII

THE AMERICAN UNIVERSITIES¹

The American universities reflect the best and the worst features of the civilization of which they are the products—a civilization which lays greater stress on material progress than on the preservation of values. As Flexner has well put it, "European education has overstressed the intellectual element; American education throughout overstates the social element."² The American universities encourage scholarly and scientific work, but, at the same time, they cater for transient and immediate needs. They attach more importance to concrete achievements than to ideas.

The system of higher education obtaining in America cannot be described as national in the usual sense of that word, as the universities and colleges are supported and controlled by the States, the municipalities and private groups. The Federal Government makes grants to what are known as 'land-grant' colleges for resident instruction, agricultural research and extension service. The State and municipal universities charge lower fees than the private universities, which are wealthy institutions with trust funds of more than a hundred million dollars each. More than half the number of students attend the State universities. The number of private universities and colleges is large, and they are controlled by boards of trustees, consisting of industrial magnates and wealthy business men, both in respect of their financial and educational programmes and policies, although they do not interfere

1. The words 'America' and 'American' are, for brevity's sake, used throughout this book when speaking of the United States of America.

2. *Vide* Kotschnig & Prys (Eds.): *The University in a Changing World* (O.U.P.), p. 123.

with the presidents (corresponding to our vice-chancellors, but with larger powers) in matters of internal administration. One remarkable feature of American universities is that their financial position is very sound on account of the large endowments made to them by wealthy philanthropists and smaller gifts from their own *alumni* and other private individuals. This accounts for the wealth of Chicago, Columbia, Yale, Harvard and Cornell Universities. Deserving students receive financial aid in the shape of scholarships, loans and part-time employment. Except for this fact, American university education cannot be described as democratic inasmuch as the control of the universities is virtually in the hands of men of wealth.

As indicated in an earlier chapter, the term 'university' is used very loosely in America. It embraces a variety of educational institutions of varying standards, with different ideals and objectives, and includes secondary schools, 'junior' colleges, graduate, professional and vocational schools. The four years that the average university student spends at college are devoted to the acquisition of knowledge of a miscellaneous collection of subjects, bearing no relation to one another. The work he does during the first two years is not above the standard of the secondary school. With a few exceptions, the colleges observe the 'unit' or 'credit' system. A 'unit' represents a year's work in a subject. For graduation a student has to offer sixteen such units. The only restriction on his choice is determined by the nature of the degree or diploma he aims at. Flexner roundly condemns this system in the following words: "But in the mass, it is still true that American college students are, at the close of four years, intellectually considered, an unselected and untrained body of attractive boys and girls, who have for the most part not yet received even a strenuous secondary school training."³ The attitude of the average American stu-

3. Vide Flexner: *Universities, American, English, German* (O.U.P.), p. 67.

dent is that of a practical person who looks upon a collegiate education as a means of getting on in life. The social and athletic amenities provided in the college receive greater attention from him than the subjects of academic study which occupy the time of the earnest scholar and the serious student during the last two years of the college course.

The graduate school is the most important institution in the American university system. The first institution of this kind, devoted to the pursuit of knowledge and providing instruction and training of university standard, was John Hopkins University, founded in Baltimore in 1876, on the model of the German universities. Similar graduate schools sprang up, e.g., Harvard, Yale, Columbia and Princeton. Today, the scientific laboratories in some of these and a few other State universities are so well-equipped and up-to-date that they challenge comparison with the laboratories of the universities of any other country in the world. The Universities of Chicago, Pennsylvania and Michigan, and Harvard, Yale and Princeton Universities have specialized in mediaeval and archaeological studies. Politics, educational psychology and economics, pure and applied, have also been cultivated at these universities, and the original contributions of their research workers in these fields of special study have received high recognition from the outside world. The last seventy years have seen America advancing into the vanguard of teaching and research. The great university libraries built up during the same period have been powerful auxiliaries in the progress achieved. This is particularly true of Harvard where every professor has his own study and every research student has his own cubicle in the library, where he can surround himself with all the important books of which he is in constant need.

Medical education is conducted on the most fruitful lines at Harvard, Yale, Chicago, Rochester, Cornell and Washington, where the universities and hospitals work

in the closest co-operation, the university choosing the hospital staff from the best available medical men on the basis of merit alone. The hospitals contain what are known as 'full-time' units, consisting of groups of teachers of clinical subjects who devote their full time to the teaching of, and research in, these subjects, and to the care of the hospital patients. They are, no doubt, assisted in their work by a qualified part-time staff. The same remarks apply to other faculties like engineering, which are also in need of teachers connected with the professions. The American universities have made remarkable progress in educational theory and practice, and can show valuable contributions to both by their teachers and scholars, Teachers' College, Columbia, leading, and Chicago, Harvard and some of the other State universities following in its footsteps.

The Americans are, however, accustomed to look upon the higher degrees as marketable commodities, since higher salaries often go with them. The result has been a cheapening of the Ph.D. degree, which is often awarded for what is dubbed 'research' in the most trifling and absurd subjects, as has been forcibly brought home by the instance, quoted by Flexner, of the award of a doctorate for a thesis on 'dishwashing'! This comes of a wrong conception of research and of forgetting that the subject of research, if it is to be worthy of that name, ought to be serious, and that the research worker must preserve an objective attitude.⁴ A mere collection of information, however accurate, without a proper analysis of the data, or the deduction of general principles throwing fresh light on an old subject or adding to the existing stock of knowledge, is not 'research', and yet, instead of avoiding the egregious error into which some of the American universities have fallen, our own universities in India sometimes follow their example and award the doctor's or the master's degree on the basis of mere reports or surveys of a descriptive character,

4. Flexner: *op. cit.*, p. 126.

miscalled 'theses'.

Mention has been made of the different types and grades of educational institutions which are treated in America as parts of a university. A short account of these would be helpful in distinguishing the sheep from the goats. Among these institutions the 'liberal college' comes first. It is either part of a university or an independent and autonomous institution, and may be either co-educational or restricted to one sex only. Its distinguishing marks are that it is not vocational and provides a course of study spread over four years, leading to the bachelor's degree. Then there is the undergraduate 'vocational college' which, too, provides a four years' course leading to a degree, the course being mainly vocational. These vocational colleges prepare candidates for the professions of engineering, agriculture and teaching as well as for commercial vocations, and may be either part, or independent, of universities. They are sometimes of a composite character, combining, for example, an arts with a commerce college, wherein the students spend the first two years in the study of arts subjects and the last two in the study of commerce.

The 'junior' colleges are of recent growth. They provide a two-year course in the humanities, the physical and natural sciences or the social sciences. There are also junior colleges or technical institutes which teach a vocational course extending over two years, of which a third or a half is devoted to general education. Last comes the 'vocational school', including in its category proprietary business colleges, nurses' training schools and trade schools. More often than not, general education is entirely neglected in the vocational school. A strong plea for greater attention to 'liberal' courses in the junior colleges, technical institutes and vocational schools is made in the Report of the Harvard Committee on General Education in a Free Society.⁵

5. Harvard University Press, Cambridge, Massachusetts, p. 180.

Before closing this chapter something must be said of Harvard College, one of the great university centres of America. This College, which is a constituent part of a larger university, offers more than four hundred distinct courses for undergraduates. Its students come from all parts of the country, from the rich and the poor alike, and from all types of schools. Sixteen courses are required to be taken for the Bachelor's degree. Towards the end of the first year of college the student, under proper guidance, selects what is known as a 'field of concentration', to which at least six of the sixteen courses which he offers for the degree must be devoted. In other words, he is required to indicate six subjects for specialization. To qualify for the degree he must pass an examination in these six subjects as a whole. For obtaining honours a student has to specialize in more than six courses, and to submit an honours essay or thesis based on special reading or original research. The tutorial system is in vogue at Harvard, the tutor being a teacher of one of the subjects of concentration.

The main defect of American universities, taken as a whole, is their comparative neglect of 'general' or 'liberal' courses of study, their attaching undue importance to specialization and, more than anything else, their indiscriminate mixing up of subjects of study, ranging from philosophy and the physical sciences at one end to cookery and clothing at the other, which indicates an unfortunate lack of sense of proportion and values. In his brilliant assessment of the work of the American universities, Flexner has described this defect in the following words: "There exists in America no university in this sense—no institution, no seat of learning devoted to higher teaching and research. Everywhere the pressure of undergraduate and vocational activities hampers the serious objects for which universities exist."⁶

6. Flexner, *op. cit.*, p. 218.

CHAPTER VIII

THE GROWTH OF THE MODERN INDIAN UNIVERSITIES

I

There are, at the present day, twenty-three universities in the Dominions of India and Pakistan and one in the Dominion of the Nizam of Hyderabad. The earliest to be created were those of Calcutta, Bombay and Madras, all of which came into existence in the year 1857, within a few months of each other. The Universities of the Punjab and Allahabad were established in 1882 and 1887 respectively. Then came a lull in the university movement, extending over a period of twenty-nine years, which was broken in the year 1916 by the birth of Benares Hindu University. During the next thirteen years eleven more universities came into existence, of which two, viz., Mysore and Osmania, were established in Indian States. A gap of seven years occurs between the last of these, namely, Annamalai (1929) and the next one, founded in the Indian State of Travancore in 1937. Four more universities have sprung up during the last decade, at Utkal in Orissa, at Saugor in the Central Provinces, at Karachi in Sind (Pakistan) and at Jaipur in Rajputana. Two more universities have come into existence as a result of the division of British India into the two separate Dominions of India and Pakistan, one at Gauhati in Assam, and another in East Punjab.

The oldest of the Indian universities has been in existence for a little over ninety years, and the four youngest, namely, Sind, Rajputana, Gauhati and East Punjab, are barely a few months old. All these universities, except those in the States of Mysore, Hyderabad and Travancore, are creatures of the Central Indian Legislature or of one of the Provincial Legislatures. The

constitutions of some of them, e.g. Allahabad, Madras and Bombay, have been modified by enactments passed subsequent to their establishment.

Sir Charles Wood's Despatch of 1854 may rightly be regarded as the starting point of modern university education in India. It impressed upon the Government of India the duty of creating a properly articulated system of education from the primary school to the university. This historic document recommended, among other things, the creation of a separate department of education, with an inspectorate in each Presidency and in each Province within the jurisdiction of a lieutenant-governor, the institution of universities in the three Presidency Towns of Calcutta, Bombay and Madras, the establishment of institutions for training school-teachers, the maintenance of government colleges and high schools and a system of grants-in-aid. In recommending the establishment of universities, the Court of Directors of the East India Company observed that their object was to 'encourage a regular and liberal course of education by conferring academical degrees as evidences of attainments in the different branches of art and science', and concurred in the view of the Council of Education that the form, government and functions of London University were best adapted to the wants of India, and might, therefore, be followed with advantage, with necessary changes in details. They also made it clear that the examinations for degrees should not include any subjects connected with religious belief, and advised the institution of professorships at the universities in various branches of learning, including Sanskrit, Arabic, Persian and the Indian vernaculars, and especially in civil engineering. Effect was given to the educational policy thus advocated by creating the Universities of Calcutta, Bombay and Madras. The Universities of the Punjab (1882) and Allahabad (1887) were created in pursuance of the same policy.

We need not stop here to examine the recommendations of the Hunter Commission, appointed by Gov-

ernment in 1882, to review the progress of education since 1854, as university education was expressly excluded from its purview by its terms of reference. The next landmark in university education that attracts our attention is the appointment, during Lord Curzon's Viceroyalty, of the Indian University Commission in 1902, the recommendations of which resulted in the Indian Universities Act of 1904. The main recommendations of this Commission with regard to the universities, which were approved by Government's Resolution on Indian Educational Policy in March 1904, were: (1) that the senates of the universities should be limited in size, (2) that teaching powers, in addition to their examining powers, should be conferred upon the universities, (3) that the universities should be given a greater control over the affiliated colleges and (4) that the universities should undertake research work. These reforms helped the five existing universities to consolidate and improve their position by becoming more efficient in the management of their own affairs, assuming teaching functions, exercising an effective check over their affiliated colleges and encouraging research.

The next stage in the progress of the university movement is indicated by the Resolution of the Government of India on Education, published in 1913, urging that the area of jurisdiction of the existing affiliating universities be reduced so as to provide a separate university for each of the leading provinces in India; and that simultaneously new local teaching and residential universities be created in each province in harmony with the best modern educational opinion. It announced that Government had already decided to establish a teaching and residential university at Dacca, and were prepared to sanction the establishment of similar universities at Aligarh, Benares and other places. By the same Resolution Government disclosed their intention to establish universities at Patna and Nagpur, and expressed their desire to see teaching faci-

lities provided and developed, and corporate life encouraged at the existing universities, so as to advance higher study and create an atmosphere conducive to social and moral as well as intellectual progress. It is interesting to note that in the same Resolution Government expressed the view that the universities should be freed from the responsibility of recognizing schools for the purpose of presenting candidates for matriculation, and that this work should be entrusted to the Local Governments and the Durbars of the Indian States, since the universities had no permanent inspectorates such as the departments of public instruction possessed. The universities could utilize their energies, thus released, for doing higher work and controlling the colleges more efficiently. It pointed out that in most provinces the universities were already relying on the departments of public instruction. We shall revert to this subject in a later chapter.¹

Benares Hindu University came into existence in 1916 largely as a result of Pandit Madan Mohan Malaviya's exertions. It was one of the cherished ambitions of this great Indian leader to see a university established which would be a live centre of Hindu culture so dear to his heart. He was able by his personal influence to obtain munificent gifts from the rulers of Indian States, rich landholders and other wealthy patrons of learning, which were necessary for establishing a teaching university of the type and magnitude visualized by him. This was the first denominational university to be established in India. The Aligarh Muslim University, contemplated in the Government of India's Resolution of 1913, did not come into existence till four years later. The University of Dacca had to wait even longer to see the light of day, although it was first in the order of precedence indicated in Government's plan.

The University of Mysore, the first to be founded in an Indian State, was created by the Mysore Legis-

1. See Chapter XI.

lature in 1916. It was also the first university to make an incursion into the jurisdiction of Madras University to which all the colleges in the State were till then affiliated. On the separation of the Province of Bihar and Orissa, Patna University was founded (1917) as an affiliating university. Since 1943 Orissa has its own university, known as Utkal University.

The next landmark in the history of university education in India is the appointment of the Calcutta University Commission, in 1917, under the chairmanship of Sir Michael Sadler. The report of the Commission, published in 1919, covers an extensive field of educational problems. Its recommendations, which were endorsed by the Government of India in a Resolution published in January 1920 and recommended to the Local Governments for their consideration, have had a profound influence on the subsequent progress of secondary and university education throughout India. The report is a bulky document, running into five main volumes and eight subsidiary ones containing appendices, and deals comprehensively with practically every problem of secondary, collegiate and university education.

Among the several recommendations made by the Commission the following may be mentioned as important, since they have affected university legislation in one way or another in different parts of India. The creation of Intermediate colleges and Boards of Secondary and Intermediate Education was one of the main recommendations of the Commission, which was followed up by the creation of such colleges and Boards in the United Provinces, the Central Provinces, Dacca, and Rajputana, Central India and Gwalior. The Commission also stressed the need of creating teaching universities in place of the present affiliating ones. The Universities of Aligarh, Lucknow, Dacca and Delhi, which were established between 1920 and 1922, were all based on the model suggested by it for a teaching university with a residential character. The Commis-

sion advocated less government control, a greater participation by teachers in the government of the universities, the appointment of full-time vice-chancellors and a closer co-operation between the universities and the colleges. Most of these reforms have been carried out in the older universities, whenever an occasion has arisen for remodelling their constitutions, as, for example, in Bombay and Madras. They have also been incorporated in the constitutions of the more recent universities.

Before the publication of the Sadler Commission's Report, Osmania University had been established at Hyderabad (Deccan). One outstanding feature of this University was the adoption of Urdu as its medium of instruction and examination. Like Mysore University Osmania took away from the jurisdiction of Madras University all the colleges situated in the Nizam's Dominions except the Nizam's College, Hyderabad, which continued to give instruction in English.

The decade which followed the publication of the Sadler Commission's Report witnessed a spate of university activity all over the country. Aligarh Muslim University (1920) and the Universities of Lucknow (1920), Dacca (1921), Delhi (1922), Nagpur (1923), Andhra (1926), Agra (1927) and Annamalai (1929) followed one another in quick succession. The first three and the last were unitary, teaching and residential universities, Delhi was federal and teaching, Nagpur and Andhra were affiliating and teaching combined and Agra was purely affiliating. In 1922 Allahabad University was reconstituted into a teaching and residential university. The burden of affiliating colleges in the United Provinces was transferred to Agra University, which was created for this specific purpose. From the point of view of university education the United Provinces are in a most favoured position, as they have four teaching and residential universities and one affiliating university. The Province of Madras comes next with two affiliating and teaching universities, namely,

Madras and Andhra and a unitary, residential and teaching university at Annamalainagar.

The succeeding seven years between 1929 and 1937 may be described as lean years for university activity. The decade commencing in 1937 has, however, been characterized by a remarkable revival which has not yet spent its force. Travancore University came into existence in 1937, still further reducing the area of operation of Madras University. The Second World War gave a slight set-back to the revival, but the end of the War was a signal for renewed activity. Within the last three years the Universities of Saugor (1946), Sind (1947) and Rajputana (1947) have sprung up. Since the partition of British India into two Dominions, two more universities have been established, one at Gauhati in Assam and another in East Punjab. Legislation is on the anvil in the Province of Bombay for setting up a university for Maharashtra in the City of Poona, and Committees are at work drawing up schemes for a Gujarat and a Karnatak University in the same Province. All these three universities are to be regional universities on a linguistic basis.

With the rapid increase in the number of universities the number of affiliated colleges has also increased. So have university departments and constituent colleges. In 1920 there were 140 affiliated colleges in the whole of India. In 1942 their number had gone up to 282, and today the figure is in the neighbourhood of 481. As against 144 university departments and 62 constituent colleges in 1942, there are today 279 university departments and 72 constituent colleges.

II

As the network of universities was spreading in all directions over the country, it came to be felt that some organization should be formed to co-ordinate the work of the different universities. The Sadler Commis-

sion had envisaged such an organization, but it was not until the Indian universities met in conference at Simla in May 1924 that the idea took concrete shape. This Conference recommended the establishment of an Inter-University Board to bring about greater co-ordination of work among the universities of India, and, in particular, to act as a central bureau of information and authorized channel of communication, to facilitate the exchange of professors among the universities, to act as an appointments' bureau for the Indian universities and to assist them in obtaining recognition for their degrees and examinations by other universities. The Board began its work in 1925. It holds annual meetings to discuss questions of common interest to all the Indian universities which are brought up before it by any of its constituent members. Each university deputs its representatives to these meetings. The Board also holds quinquennial conferences for the discussion of important questions concerning university education, and its opinion has been sought by the Central Advisory Board of Education on problems of university education.

The Inter-University Board has helped to bring about a better understanding among the universities, and its meetings and conferences have provided opportunities for fruitful contacts between the representatives of the several universities and for exchange of views on common questions of university policy and administration. Individual universities do not favour any interference on the part of the Board in matters relating to their internal administration, and have been jealous of their indubitable right to be the sole judges in deciding questions regarding the equivalence of examinations. The Board has great potentialities and, as a body which represents all the universities, its opinion has commanded the attention and respect of the Government of India. Such a body is necessary for guarding the independence of the universities in matters of vital concern to them, especially when attempts are

made by bodies like the Central Advisory Board, as happened recently, to pass judgment on questions connected with subjects falling legitimately within the province of the universities, such as the prescription of text-books and courses of study and the appointment of examiners, on which they would naturally refuse to be dictated to by a body which cannot lay claim either to knowledge or to first-hand experience of university education. Matters came to a head in 1945 when the Inter-University Board at their meeting held at Colombo passed a resolution recording their protest against the tendency on the part of the Central Advisory Board of Education to consider and arrive at conclusions on problems relating to University education without any reference to the Inter-University Board, which was primarily concerned with them, and to address the Universities direct on them. A clear demarcation of the functions of the two bodies, agreed upon between them, has eased the situation and no further occasion has arisen since for a conflict of this kind.

Before bringing this chapter to a close, it is necessary to refer to three important reports dealing with university education, viz., (1) the Report of the Auxiliary Committee appointed by the Indian Statutory Commission (better known as the Hartog Committee), 1929, (2) the Report of the Punjab University Enquiry Committee, 1933, presided over by Sir George Anderson and (3) the Report of the Central Advisory Board of Education on Post-War Educational Development in India (popularly known as the Sargent Report), 1944.

The Hartog Committee's Report was more in the nature of a review of the growth of education in British India than a document containing specific recommendations with regard to future developments in education. Its main value lies in the fact that it gives an authoritative account of the progress of Indian education, including university education, under British rule. There are, however, a few valuable observations scattered through its pages, which may be helpful in deter-

mining future educational policy. Thus, speaking of unitary universities, the Report says: "In certain circumstances, the unitary university is the better type. Provided that a corporate life can be evolved in the halls, which is comparable to the traditions of the better colleges in the older universities, that the teaching is properly organized in the several departments of study, and that the members of the several university authorities are both competent and capable of understanding the significance of such a university, then a unitary university should result in more efficient teaching, more effective expenditure of the available resources, closer contact between staff and students and a more stimulating corporate life."²

Quoting the instances of Dacca University, in Bengal, and the four teaching Universities of Allahabad, Benares, Aligarh and Lucknow, in the United Provinces, the Report observes that it is only where more than one university exists in a province, one of which is of the affiliating kind, that the other or others have conformed to the unitary type, evidently treating 'unitary' and 'teaching' as convertible terms. The corollary which the authors of the Report want us to draw is that, where there is a single university in a province, it should be of the affiliating type, partly in order to cover the area adequately, and partly to avoid the alternative of abolishing the existing colleges. No one is likely to challenge the conclusion at which they arrive, namely, that the requirements of India cannot be met solely by unitary universities and that the affiliating university is likely to remain for many years to come.

The Punjab University Enquiry Committee's Report, which attempts to follow the lines of the Report of the Sadler Commission and contains a number of valuable recommendations, produced no appreciable change in the constitution or character of the Punjab University, as the Senate of that University was not pre-

2. See the Hartog Committee's Report, p. 121.

pared to implement these recommendations.

The Sargent Report (1944) is the latest authoritative pronouncement on the educational policy of the Government of India. University education occupies a very small part of that Report, but the suggestions made deserve careful consideration, though they may not all be acceptable. Few would question the statement that the full aims and aspirations of a university education in the highest sense of the term have yet to be realized in India. The Report also lays an unerring finger on some of the crying defects in the Indian university system. Briefly stated, these are as follows:

(1) The universities attach too much importance to examinations.

(2) Book-learning is unduly emphasized, and original thinking is not encouraged.

(3) Personal contacts between teacher and student are lacking.

(4) Aid from the State and from private benefactions is inadequate, with the consequence that the universities are obliged to depend on examination fees, which leads to the deterioration of their standards.

(5) There is no scheme for providing financial assistance to poor but able students.

(6) There is a need for more universities.

The Sargent Report endorses the view of the Hartog Committee that affiliating universities are an economic necessity in a large and poor country like ours, and that higher education cannot be concentrated in selected centres for the same reason. It makes four important recommendations which deserve consideration. These are:

- (a) That the degree course should be one of three years, with one year of the Intermediate course added to the schools, without a lowering of standards.
- (b) That there should be one examination with a twofold purpose, serving as a school-leaving certificate marking the successful close of the

secondary school course, and as an entrance examination to universities.

- (c) That one-third of the number of students at universities should be assisted with scholarships and payment of maintenance expenses from the Government's coffers.
- (d) That a Grants Committee, on the lines of the University Grants Committee of Great Britain, should be constituted to exercise general supervision over the allocation of grants to universities from public funds. Further, that this Committee should encourage private benefactions, co-ordinate university activities, prevent undesirable competition, establish cultural contacts and exchange of teachers and students, and that the Provincial Governments should consult the Committee before making new grants for substantial new developments.

The first two recommendations, however, call for scrutiny and comment, and will be discussed in a later chapter.³

The third and fourth recommendations mentioned above appear to be unexceptionable. The Government of India have already appointed a University Grants Committee on the lines suggested in the Report. On the recommendation of the University Grants Committee, the Government of India have already sanctioned the payment of grants-in-aid to Delhi, Benares and Aligarh Universities for the improvement of certain departments of studies, such as engineering and women's education. Grants have also been made to the National Institute of Sciences and the Indian Association for the Cultivation of Sciences. A scheme for promoting fundamental research in the Indian universities has also been accepted. Another step taken by the Government of India to implement the Report is the formation of a separate Plan-

3. See Chapter XIX.

ning Section under the Department of Education to examine the Five-Year Plans received from the Provinces and co-ordinate the work of central plans.⁴

4. See Proceedings of the 13th Meeting of the Central Advisory Board of Education in India held at Bombay in January 1947, pp. 30, 31.

CHAPTER IX

SPECIAL FEATURES OF INDIAN UNIVERSITIES

It is not proposed to give in this chapter a detailed account of the several universities, the circumstances of whose origin and growth form the subject of the preceding one, as the reader will find such an account in the Handbook of Universities published by the Inter-University Board from time to time. What is more important for the purpose of this book is to invite attention to the salient features of the Indian universities which differentiate them from the universities of other countries and from one another. Many of them possess some distinctive feature or other as the result of historical accident, geographical situation or political, economic or social causes.

In Chapter II some of the Indian universities have been referred to by way of illustration, but they have not been exhaustively classified. This is now necessary as a preliminary step to the study of their distinguishing characteristics with which we are concerned in the present chapter.

It would be true to say that the progress of university education in India during the last ninety years has been marked by a definite and conscious movement from the examining and affiliating to the teaching type, with the consequence that, at the present time, except for the Universities of Patna and Agra, all the affiliating universities have assumed, and are discharging, teaching functions to a greater or smaller degree. One of them, Allahabad University, has undergone a complete transformation by becoming a purely teaching and residential university. Many of the more recent universities, beginning with Benares in 1916, came into existence as only teaching universities with a residential character, and with a unitary constitution in all instances except

one.

In education, as in politics, regionalism is gaining ground, and it is almost certain that in the next few years regional universities on a linguistic basis, as indicated in the Report of the Maharashtra University Committee (1943), will be established in many parts of the country. As a result of the division of British India into two independent Dominions from the 15th August, 1947, some more universities of the affiliating type with teaching functions will in all probability be created. Two have already come into existence at Gauhati and in East Punjab. Excluding the last two universities which are still in their formative stage, there are today twelve affiliating universities exercising teaching functions, viz., Calcutta, Bombay, Madras, West Punjab, Osmania, Nagpur, Andhra, Travancore, Utkal, Saugor, Sind and Rajputana. The following six are teaching and residential universities: Allahabad, Benares, Aligarh, Lucknow, Dacca and Annamalai. Patna and Agra are merely affiliating universities. Of the remaining two Delhi is a teaching and federal university, while Mysore is a teaching and unitary one.

Some of the affiliating and teaching universities have constituent colleges in addition to their teaching departments, e.g., Madras, (West) Punjab, Osmania and Travancore. In the group of teaching and residential universities all except Lucknow have university departments. Allahabad, Benares and Lucknow have also constituent colleges. Benares has even affiliated colleges, and conforms to the federal type. Patna and Agra Universities have only affiliated colleges. Delhi has both teaching departments and constituent colleges, while Mysore has constituent colleges, but no teaching departments. It will thus be seen that a teaching university may carry on its teaching either through its own departments or through constituent colleges directly controlled by it, but a university which has neither of these, but only affiliated colleges, is a purely affiliating one.

Three of the Indian universities, Mysore, Osmania and Travancore are in Indian States. Mysore was the first university which sought to foster the 'culture' of a region. Osmania was the first to adopt a modern Indian language, viz., Urdu, as the medium of instruction and examination. It has set up a translation bureau on an extensive scale for making translations in Urdu of standard text-books. Travancore University has the conservation and promotion of Kerala 'culture' as one of its professed objects. It has also given special importance to the advance of technological education and research. It is interesting to note that all these three universities have been responsible, one after another, for curtailing the jurisdiction of the University of Madras.

Of the three oldest Indian universities Calcutta had the most extensive jurisdiction. While those of Bombay and Madras had their jurisdiction confined to the geographical boundaries of their respective Presidencies, Calcutta University included in its ample jurisdiction not only the Province of Bengal, but the Punjab, the United Provinces, the Central Provinces, Bihar, Orissa, Assam, and even Burma and Ceylon. As new universities were established in these territories, the area of its operation was reduced from time to time. Until the year 1917 it had practically no teaching staff of its own. In that year, mainly through the efforts of the late Sir Ashutosh Mukerjee, the University began to organize and develop its post-graduate work by concentrating it in its headquarters. A huge staff of professors and lecturers, some of whom belonged to the affiliated colleges and worked part-time for the University, was appointed, and Post-graduate Councils in Arts and Science were created, which included teachers in the several departments of post-graduate study. Calcutta was thus the first affiliating university to undertake teaching on a large scale.

Bombay University developed its teaching side in or about the year 1919 by establishing two departments

for teaching and guiding research in economics and sociology, which form one administrative unit known as the University School of Economics and Sociology. After its reconstitution by the Act of 1928, it established a department of chemical technology in 1934. Today, this is the largest department of its kind and the best equipped in the whole country. It provides instruction in seven different branches of chemical technology, leading to the B.Sc. (Tech.) degree, and also guides and conducts research in all these branches. The University has very recently decided to institute a department of Statistics with the idea of developing it in due course into a full-fledged department of mathematics. Provision has been made for teaching mathematical statistics and applied statistics with special reference to economics and agriculture. Much of the post-graduate work and expansion of the teaching and research departments of the University has been made possible by generous endowments from private donors, trusts and public bodies.

The University of Madras has also recently expanded its teaching activities by instituting departments of teaching and research in Indian history and archaeology, Indian philosophy, Oriental languages, botany and zoology, biochemistry, chemical technology, public administration and music.

Punjab University (West) maintains its own colleges in law, commerce and Oriental languages, and its own chemical department and laboratory. It also conducts certain honours schools through a combined staff of its own full-time professors and lecturers and part-time lecturers drawn from its affiliated colleges. One feature which calls for special mention is its Faculty of Oriental Learning in which the degrees of Bachelor and Master are conferred upon candidates who have studied Oriental languages through the medium of a modern Indian language.

Benares Hindu University was one of the first Indian universities to lay stress on the importance of technological studies by establishing departments of engi-

tended to the States of Rajputana, which have very recently come under the jurisdiction of the new Rajputana University (1947). Agra University has no control over the Intermediate colleges in the United Provinces, which are affiliated to the Board of High School and Intermediate Education. Annamalai University, which owes its existence to the initiative and munificence of Raja Sir Annamalai Chettiar, who donated Rupees twenty lakhs along with the collegiate institutions founded by him at Chidambaram, has a Faculty of Oriental Learning and an Oriental Training College for Sanskrit and Tamil *pandits*. Indian history and Indian music receive special encouragement at this University. Saugor University owes its existence to the munificence of Sir Hari Singh Gour. The Universities of Utkal (Orissa), Sind and Rajputana have been conceived on a regional basis.

It must be said to the credit of the Indian universities that women are admitted to all the privileges which are enjoyed by men, although in one of them there was for some time a bar against their admission to examinations. Except in the Indian Women's University, no separate courses are provided for women, though the wide range of subjects enables them to select such as are better suited to their aptitudes and tastes. Women students have been known to take practically all the courses which are taught at the universities, including law, medicine, commerce, engineering and chemical technology, and what is even more remarkable is that they have achieved noteworthy success and sometimes even excelled the men students at university examinations. The university departments and constituent and affiliated colleges admit both men and women students, as co-education is the rule rather than the exception in India's educational institutions. There are, however, a few colleges in some universities which are intended exclusively for women students, and one university makes special arrangements for *purdah* women attending its teachers' training college.

The modern Indian languages are assuming increasing importance as subjects of study and as possible media of instruction and examination in Indian universities. There is a widespread desire to see English replaced by one of these languages. Osmania University gave a lead thirty years ago by making Urdu the medium. In many of the other universities candidates are given the option to answer examination papers in certain subjects in their mother tongue. The Universities of Calcutta and Nagpur have introduced Bengali and Hindi, Marathi and Urdu respectively as media of instruction as well as of examination. In the province of Bombay, where five modern Indian languages are spoken, viz., Marathi, Gujarati, Kannada, Urdu and Hindi, there are practical difficulties in introducing any one of these languages as the medium of instruction at the university stage, though it is much easier to do so in the secondary schools, on account of their large number. With the establishment of regional universities in Poona, Gujarat and the Karnatak, these difficulties may be minimized to some extent, although they cannot vanish altogether, at least for some time, since some special provision would be necessary for the minorities who speak a different language.



CHAPTER X

INDIAN UNIVERSITIES WITHOUT A CHARTER

This book is mainly intended to deal with universities which derive the authority for carrying on their work from a royal charter, an act of parliament or an act of a country's legislature, and which are generally described as 'recognized' universities. There are other educational institutions, established by private agencies, which do work of university type and confer their own degrees and diplomas, not ordinarily accepted either by the public or by governments as equivalent to the degrees and diplomas of the recognized universities. The number of such institutions is fairly large in all countries. There are two institutions of this kind in India which deserve to be mentioned because they have achieved a reputation in the outside world, or signify a trend or movement which is worthy of attention, or are likely to receive recognition in due course.

First among these in importance is Visva-Bharati of Santiniketan, founded in the year 1922 by the late Dr. Rabindranath Tagore, the greatest literary figure of modern India, her philosopher-poet and the interpreter of her spiritual message to the West. The second, though earlier in point of time, is the Indian Women's University, known as Sreemathi Nathibai Damodhar Thackersey Indian Women's University—to give its full name—founded in 1916 by Professor D. K. Karve, a great social worker of Poona.

The Indian Women's University was established in order to provide for the higher education of women through modern Indian languages as media of examination and instruction, and in subjects specially suited to the needs and requirements of women. The University has its own colleges at Poona and Bombay, two affiliated colleges, one at Ahmedabad and the other at Baroda,

and collegiate classes at some other centres. It has also a number of recognized schools. The Government of Bombay has recognized the degrees and examinations of this University for the purpose of making appointments in Government service. Proposals are under consideration for getting the University incorporated by an Act of the provincial legislature, and a Committee has been appointed by the Government of Bombay to report on them.

The *Ashrama* at Santiniketan, founded by Mahatma Devendranath Tagore in 1863, was the nucleus of Visva-Bharati, which came into existence as an International University in May 1922, as a consequence of Rabindranath Tagore's munificence and personal interest. Visva-Bharati is a registered body, like the Indian Women's University, and not the creature of an act of the legislature. The objects with which it was established were to bring into more intimate relationship the diverse cultures of the East, providing a new approach to Western science and culture, and to bring about an understanding between the East and the West by the study of their cultures. The University is situated at a distance of about a hundred miles from Calcutta, remote from the din and bustle of the world, in a very quiet spot surrounded by extensive open spaces. It has achieved an international reputation by attracting students from different parts of India, Asia and Europe. It is largely a residential institution, where individual attention is given to the students, as in the ancient Indian universities, and has an extensive library. Up to the date of his death Tagore, who resided there, was a constant source of inspiration to its students.

The University has several constituent departments, each having its own special function to perform. There are a School of Research (*Vidya Bhavana*), a School of Chinese Studies (*Cheena Bhavana*), a college affiliated to Calcutta University, a School of Fine Arts and Crafts (*Kala Bhavana*), a School of Music and Dancing (*Sangit Bhavana*), a School and an Institution

of Rural Reconstruction. The *Vidya Bhavana* encourages original research in Oriental languages, literature and culture; the *Cheena Bhavana*, under a Chinese Director, promotes cultural exchange between India and China, and has both Indian and Chinese scholars studying the language, religion and philosophy of the neighbouring country. The *Kala Bhavana* has attained international repute for its school of painting and museum of antiquities, under the direction of Mr. Nandalal Bose. The contact between teacher and student is very close in Visva-Bharati. There are a general and a governing body, and any one without distinction of caste, colour or creed can become a member of the University and its constituent bodies by paying the prescribed subscription.

It may not be out of place to refer in this chapter to certain educational institutions, where research is carried on in cultural or technological subjects, and some of which confer diplomas, certificates and even degrees. The research work carried on in some of them is of such a high order that it is recognized by Statutory universities for the award of the master's or the doctor's degree, subject to the condition that the person guiding the work is a recognized post-graduate teacher of the university to which it is submitted. The Bhandarkar Oriental Research Institute and the Deccan College Post-Graduate and Research Institute, Poona, and the Indian Institute of Philosophy, Amalner, between them offer facilities for research in Oriental studies, Philosophy, Archæology, Ancient History, Linguistics and Sociology. They do not grant any diplomas or certificates. The Thomason College of Civil Engineering, Roorkee, the Indian School of Mines, Dhanbad, the Harcourt Butler Technological Institute, Cawnpore, and the Imperial Council of Agricultural Research, New Delhi, train up students and grant diplomas or certificates in civil engineering, mining engineering, oil technology and agriculture, respectively, and the last two provide facilities for research as well. The

Indian Institute of Science, Bangalore, encourages post-graduate research in physics, general and organic chemistry, bio-chemistry and electrical technology. It confers the Associateship of the Institute on students whose research work is accepted by it. The Associateship is accepted as having the same status as the M.Sc. degree by research of one of the older Indian universities by Government and industrial firms. The Serampore College, in Bengal, although affiliated to Calcutta University in arts and science subjects, is authorized by an Act of the Bengal Legislature to confer degrees in Divinity and the Diploma of Licentiate in Theology. A proposal is under consideration for expanding the Roorkee College into an Engineering University for India. National Universities, such as the Gujarat Vidyapith, the Tilak Vidyalyaya and the Kashi Vidyapith, which sprang up during the non-co-operation movement, encouraged the study of the classical languages, ancient Indian culture and history and the use of modern Indian languages as media of instruction, with the main idea of infusing the spirit of patriotism into the students. They served their purpose, but are not likely to continue as permanent features of the Indian university system.

The Jamia Millia Islamia or National Muslim University, which has its headquarters at Jamianagar, Delhi, was founded in October 1920. It is conducted by an educational society consisting of members who have taken a pledge to serve the cause of education for a period of twenty years on a small remuneration. In spite of the spirit of independence which has prompted the society to refuse financial aid coupled with conditions, it has received generous support from the rich as well as small subscriptions from the poor in appreciation of the high ideals which its workers have been striving to attain. The Jamia Millia maintains a residential college which provides instruction in the arts and the social sciences and throws open the gates of modern knowledge to the graduates of Arabic *Maddressas*. It also conducts a residential High School on modern lines,

which encourages pupils to develop their individuality. A primary and a middle school, an institute of adult education, a training institute for teachers intending to adopt the principles and practice of basic education, an Urdu academy, a public library of books in Arabic, Persian, Urdu and English, a publishing house (the *Maktaba Jamia*) which specializes in the publication of juvenile literature are other features of the institution, which combines educational activity at different levels by way of a new educational experiment on modern and scientific lines. The object of the institution is to foster an all-round development of the individual which will make him a cultured and useful citizen. In a country of the magnitude of India, with the complex problems facing it in its present transitional stage from dependence to a new-won freedom, new educational experiments like that undertaken by the Jamia Millia are full of potentialities and deserve encouragement and careful watching.

CHAPTER XI

UNIVERSITIES AND THE STATE

In so far as universities are created by charter or statute, and derive their authority to confer degrees from the same source, they are dependent on the State for their constitution and powers. In this sense there is full justification for the statement of Ortega Gasset that "in the last analysis even in England the universities are institutions of the State".¹ The proposition applies with equal force to all modern universities, wherever situated. Theory and practice, however, do not always go together, and if we study the history of the universities of Great Britain, we shall find that the State has rarely, if ever, interfered with them or their work, while it has readily come to their aid with grants.

Apart from its power to create new universities by legislation, the State in Great Britain has the power of appointing a 'royal commission' of inquiry to report on any existing university, and Parliament may follow up the report by appointing a 'statutory commission' to frame statutes to give effect to its findings. In practice, no royal commission is ever appointed unless a university asks for one, and even then care is taken to see that such a commission includes several members of the university. The same is true of a statutory commission.

The Minister and Board of Education have no control over the British universities. Government does not appoint its representatives on the governing or other bodies of the universities, and, except in the case of three of the Scottish universities, neither the Crown nor Government appoints the academic heads. Nor does either of them exercise any patronage except in mak-

1. See *Mission of the University* (Kegan Paul), p. 39.

ing appointments to some Regius Professorships in Oxford and Cambridge. The local authorities, too, do not exercise any control over the universities. This is in striking contrast to the position in Continental countries like France, Germany, Italy and Spain, where the universities are under the control of the State. In Germany, they are under the education ministries of the respective federated states. In Italy, the State nominates the rectors, and, with their advice, the presidents of the various faculties.

Indian universities stand midway between the British and the Continental universities. Government control over them is nothing like the all-pervading control of the State over the universities of France or Germany. At the same time, they do not enjoy the full freedom of the British universities. The Governor of the Province where a university is situated is its *ex-officio* Chancellor, except in Delhi where the Governor-General is the Chancellor. In Mysore and Travancore, the ruler of the State is the Chancellor. In Osmania University this position is occupied by the President of the Executive Council of the Nizam's Government. The Governor-General is the Lord Rector of Benares and Aligarh Universities. The Governor-General and the Governors of Provinces are usually invested with visitorial powers.

In most of the universities the Chancellor appoints the Vice-Chancellor, who is the executive head, and, as such, responsible for the administration. Even where the Vice-Chancellor is elected from a panel, the powers of approval and veto rest with the Chancellor. His approval is also necessary in some universities before a statute or regulation passed by their supreme governing bodies can become effective. Then again, certain heads of government departments are *ex-officio* members of the supreme governing bodies, and the Chancellor has the right to nominate a number of fellows to them. The nominated fellows form the majority in the governing bodies of the Universities of Calcutta and

(West) Punjab even to this day. In these various ways Government is able, directly and indirectly, to control and influence university policy. It must be observed, however, that governmental influence is waning in the newer, and in some of the older, universities with an increase in the elected element in their governing bodies. It will, nevertheless, take some time before the older universities are able to free themselves altogether from the fetters of government control forged by the Indian Universities Act of 1904.

The British universities have been able to maintain their independence and resist State interference for two reasons. One is that, unlike the Continental universities, which depend entirely on the State for their support and growth, they have their own independent income from rich public endowments and private benefactions of wealthy patrons of learning like Owens, Mason, Mills, Cecil Rhodes and Lord Nuffield. Until very recently the State contributed very little to their income. Hence the oft-quoted dictum that the British Universities are the creation of the British nation, not of the British State. The other is that the British Government itself was for a long time averse to giving financial assistance for the promotion of university education. Since 1882, however, the British Exchequer began to make *ad hoc* grants for specific purposes. In 1919, these grants were lumped into a single grant for the universities as a whole, to be distributed among them and the university colleges in the form of block grants, recurring or non-recurring, at the discretion of a standing committee of the Treasury, which had no connection with the Board of Education. This Committee, known as the 'University Grants Committee', disbursed a sum of £1,800,000 in the year 1932. Since then the sum has been further increased from time to time. It stood at the figure £2,149,000 in 1940, and in 1946-47 the annual grant mounted to the huge figure of £9,450,000, including a renewed grant of £1,200,000 which had lapsed during the preceding year. The Bri-

tish Budget provides for a non-recurring grant of £3,500,000 and a recurring grant of more than £8,000,000 for 1947-48. The recurring grant is to rise by annual increments to nearly £12,000,000 in 1951-52. It is worthy of note that this large increase in the annual financial contribution has not entailed any increase in financial control. It has been estimated that in future 75 per cent of the income of the British Universities will come from the Government.²

The University Grants Committee of Great Britain has a paid chairman, a paid secretary and a permanent office, and is composed of persons with wide experience of university administration and education, covering all important branches of knowledge. It allocates each grant after a careful review of the work of each institution, with due regard to its financial condition. It visits each university once in five years and discusses its problems and policy with the authorities, the teachers and the students. It has won great popularity with the universities by its sympathetic attitude towards their needs and demands, which is not surprising, seeing that it consists of teachers and persons who have themselves been students once in one university or another. In 1943 the Committee was reconstituted and additional members were appointed. In order that the Committee might play a more influential part than in the past in the 'new phase of rapid expansion and planned development of (the) universities' in the post-war period, the terms of reference for the Committee were re-defined as follows:

"To inquire into the financial needs of university education in Great Britain; to advise the Government as to the application of any grants made by Parliament towards meeting them; to collect, examine, and make available information on matters relating to University education at home and abroad; and to assist, in consul-

2. See *Universities Quarterly*, February 1947, Vol. I, No. 2, p. 128.

tation with the universities and other bodies concerned, the preparation and execution of such plans for the development of the universities as may from time to time be required in order to ensure that they are fully adequate to national needs.”³

The Central Advisory Board of Education in its Report on Post-War Educational Development in India recommended the establishment in India of a University Grants Committee, on the lines of the British Committee, to supervise the allocation of grants to the various universities from public funds. It has suggested that the Central Government should make their grants through this Committee, which should co-ordinate university activities so as to prevent overlapping and undesirable competition among the universities, encourage private benefactions, establish cultural contacts and facilitate the exchange of teachers and students. The Government of India have already taken action on this recommendation by appointing the Indian University Grants Committee, which has started functioning and has been recently reconstituted. Since education is a provincial subject in India, and grants to universities, except in a few cases, are made by the provincial governments, in order to ensure an equitable and proper disbursement of public funds among the universities, it will be necessary for this Committee and the several provincial governments to hold frequent mutual consultations and work in the closest co-operation. In 1940-41 the total of the grants received by the Indian universities from the State was 39.4 per cent of the total expenditure amounting to Rs. 4,63,83,971. The Central Advisory Board has recommended that the State should provide 70 per cent of the total expenditure, including 10 per cent to be set apart for maintenance grants for needy students.⁴

3. See *The Year-book of the Universities of the Empire*, 1947 (G. Bell & Sons, Ltd., London), p. 4.

4. See Report on Post-War Educational Development in India (Delhi, 1944), p. 33.

Until the end of the First World War the quantity of original work carried on in the Indian universities was very limited. Since then, research in several branches of natural science and in social studies has received great impetus from the institution of research degrees, the award of research fellowships and studentships, the endowment of scientific laboratories and research departments in the universities by patrons of learning and industrialists, the starting of scientific journals and the periodical congresses and conferences of workers in various branches of science and learning. The universities in this country are, unfortunately, not so well endowed as those of America or Great Britain, and their chief income is derived from the fees paid by their students. The cost of equipping the laboratories and of providing the staff for carrying on research in science subjects is getting beyond their means and they are hard put to it to meet the all-round increase of their expenditure as a result of the legacy of high prices left by the last war. If the progress of research is not to be impeded by these extraneous difficulties, the provincial and central Governments needs must come to the rescue of the universities by making substantial increases in their recurring and capital grants. This is all the more necessary, because the sources from which private benefactions flowed in the past are now drained by heavy taxation.

In his thought-provoking book, *Mission of the University*, Ortega Gasset rightly observes: "All those who receive higher education are not all those who could and should receive it The knowledge of the university is valuable and desirable to the working man. The process of making the university accessible to the working man is the business of the State."⁵ He follows up this argument by pointing out that "since in actual practice the working man does govern, sharing that function with the middle class, it is urgent that the

5. *Vide* p. 40.

university education be extended to him.”⁶ Both these remarks apply with considerable force to all modern democracies. The Government of Great Britain has discharged its duty to the working man by granting State scholarships through the Board of Education. Local Education Authorities make grants to universities. In 1944-45 these grants amounted to approximately £514,000. Public educational charities, such as the Carnegie Trust in Scotland, render assistance to poor students in various ways. Nearly half the total number of students in the British universities receive help in this manner. Even the Universities of Oxford and Cambridge, which are looked upon as strongholds of the aristocracy and the rich, have a large proportion of assisted students. India is a far poorer country than Great Britain. Millions of its population go without a square meal. Much less can these millions afford the cost of a university education, and yet it will not be denied that among them there are many who have the ability and the desire to benefit by such education, and deserve to be given the opportunity. Lowering the cost of university education is not feasible; nor would it solve the problem. The only solution seems to be that suggested in the Sargent Report, viz., that one-third of the number of students at universities should be assisted out of public funds.

While on the subject of the relationship between the universities and the State, it would be pertinent to discuss how far, if at all, the State should have anything to do with the affiliation of colleges by universities in India. By laying down strict conditions for the affiliation of colleges, and conferring on the universities the right of inspecting colleges and issuing instructions for the maintenance of their efficiency, the Indian Universities Act, 1904, gave the universities a more effective control over collegiate education than they had before. The same Act, however, invested Government with the

6. *Vide* p. 46.

powers of affiliation and disaffiliation. Although ordinarily Government does not take decisions in matters of affiliation contrary to the views of the universities, it has happened sometimes that the university's opinion has gone unheeded. Such disagreement causes unnecessary friction between universities and Government. As the colleges carry out the teaching work of the universities it is proper that the latter should have the last word in granting or withholding affiliation. Otherwise the colleges would be in a position to set the universities at naught, for, in the absence of such power, the rights of inspection and control become illusory. Even today there are some universities, like that of Madras, which enjoy this power, the Provincial Government having no say in the question of affiliation or disaffiliation. It is time that all the other universities acquired the same power.

It stands to reason that the universities, in their turn, should give up their right of inspecting secondary schools which send up candidates for their matriculation examination, where they are regularly inspected by the trained personnel of Government. University recognition should automatically follow Government recognition. Such a course would remove possible friction between two different recognizing authorities, dual control of schools and inefficiency, since the universities are obliged to depend on *ad hoc* committees of inspection, in the absence of a permanent trained inspectorate with the clerical assistance necessary for satisfactory routine checking of class and school registers, leaving certificates, and promotions. Even if there was some justification for the assertion of their right by the universities under a foreign Government to prevent the victimization of schools on political grounds, there is no possibility of a conflict of this kind with a popular Government in power.

School administration would become more efficient if the present dual control were removed, and the departments of public instruction were left in full con-

trol of secondary schools. The ability, experience and energy of university fellows and teachers, on which there is today a heavy demand for carrying out the work of school inspection, could be employed more profitably in work connected with higher education at the university level, of which there is plenty to do. Government, on their part, would be able to maintain a uniform policy with regard to the organization of secondary education throughout the province.

What has been stated applies to schools situated in either Dominion. So far as schools in the Indian States and in foreign territories like Goa or Pondicherry are concerned, the universities would still be obliged to exercise their powers of inspection as hitherto, until some better method of ensuring the efficiency of the schools could be devised.

CHAPTER XII

UNIVERSITIES AND THE PUBLIC

Education, especially university education, cannot be self-supporting. It can never be maintained out of the tuition or examination-fees paid by students and has to look for the necessary financial aid to the State and the community, neither of which should grudge the contribution it is called upon to make. As institutions which spread culture, advance knowledge and stimulate the spiritual, moral and material progress of the nation, the universities have an irresistible claim on the nation's exchequer. The State would be failing in one of its most important obligations, if it did not assist university education. The community, for which the State exists, and whose interests are identical with those of the State in democratic and socialist countries, must also share the burden of university education with the State. In doing so, it only pays back a debt which cannot be measured in terms of money, since university education is indubitably an invisible national asset.

The universities of America and Great Britain are munificently endowed by private donors, which is an unmistakable indication of the appreciation of the value of university education by the public of those countries. In India, too, the Universities of Calcutta, Bombay, Lucknow, Nagpur and Annamalai have been the recipients of generous endowments. The addition to their income from these endowments is, however, comparatively small, and in many instances the gifts are burdened with conditions which do not allow the universities a free hand. Carnegies, Rockefellers and Nuffields are rare enough in the West. They are rarer still in India, where religious faith and sentiment have too strong a hold on the hearts and minds of the wealthy and the generous to permit

them to think of endowing universities rather than temples, mosques, churches, hospitals, dispensaries and *dharamshalas*. India is doubtless in need of many more institutions for the relief of the sick, the maimed and the poor, but the needs of higher education are not less urgent. More medical colleges and more technological and science institutes with up-to-date equipment for research are necessary, if disease and poverty are to be eradicated from this land. The public require to be trained in the ways of enlightened charity, so that their generous impulses are directed into channels of national well-being and progress.

As pointed out already, public endowments and support have enabled the British universities to retain their independence, and to keep out State interference. He who pays the piper calls the tune. If a university has no means of support other than government grants, it would be no matter for surprise if it gave in every time its policy clashed with that of the Government. This was the position when India was under foreign domination. The danger of government interference cannot be said to have vanished with the advent of popular government. It would, in any event, be to the advantage of Indian universities, even under existing conditions, not to place undue reliance on government help, which is only possible if they can consolidate their financial position through public support.

The public in a modern, educated democracy are shrewd, and will not give something for nothing. The imponderable benefits which a university confers upon the community, as a whole, do not appeal to them, as they expect some concrete and immediate return for the financial help demanded of them. This is a common experience in India, which has just awakened to the consciousness, not only of political power but of the rights of the common man. Such an attitude need not, however, discourage the universities, because they can rise to the occasion and play their part by placing their services at the disposal of the populace outside their

gates. Though it may not be possible to bring the masses desiring education to the university, it is possible to carry the university to them by adult education through what is known as university extension. The universities can organize extension lectures for the benefit of the adult population, late afternoon and evening classes for workmen and apprentices in mills and factories, refresher classes for school teachers and technical men, schools for social workers, citizenship schools, library service and popular instruction in subjects like aeronautics, radio and automobile engineering. They may well revive the ancient Greek custom of lecturing to the people in open places, like the Areopagus, by asking their professors (of course, on payment) to deliver popular lectures on events of current politics or on burning social topics, and thus keep the university constantly before the mind of the common man and woman, so that they may think of it as a popular institution interested in their welfare, and not as a place far removed from their gaze by high and thick walls, where literary high-brows and aristocrats live a sheltered life of cultured ease.

University extension is, perhaps, the best means of bringing the university into living contact with the outside world of the common citizen and the working man, and giving them the opportunity of sharing in the intellectual life which it stands for. It benefits all classes of persons who desire a university education, but are denied the full advantages of it by their economic condition. It enriches their lives by bringing to them what are often described as 'cultural values', which make life fuller and more worth living, and helps to make them more useful and enlightened citizens. The university cannot take its rightful place in national life in this democratic age unless it can capture the heart and imagination of the worker in the factory, the labourer in the farm and the man in the street, who are the heirs of political power today, and who will be the persons to determine the shape of things to come. This it

can only do by marching from its campus to the market-place from time to time in the manner indicated above. Extension, or extra-mural work of the kind mentioned has naturally far greater possibilities in the cities and larger towns than in thinly populated areas.

CHAPTER XIII

CONSTITUTIONS OF UNIVERSITIES

The constitutions of different universities disclose considerable variations in detail, but the general principles underlying them are very similar in the universities of Great Britain and in those of India. There is a supreme governing body (usually with the power of the purse), variously known as the Court, Court of Governors, Convocation or Senate; then there is an executive body, which, in some universities is called the Senate and, in others, the University Council, Hebdomadal Council, Council of the Senate or Syndicate. This consists largely of laymen elected by the Court; then there is a third body called the Academic Council. Senate or *Senatus Academicus*. In Oxford and Cambridge, however, there is no body corresponding to the Academic Council, and in the Scottish universities the Court exercises the combined powers of the Court and the Executive Council of other universities. They have also a General Council of the Court whose functions are only advisory and suspensory. There was no Academic Council in the older Indian universities. In all universities there are Boards of Studies which advise on the syllabuses, and Faculties which deal with common interests relating to the several subjects falling within their respective provinces of arts, science, medicine, engineering, technology, law and commerce.

Although the same name is sometimes used to denote bodies exercising different powers and functions, the following pattern is common to the majority of the constitutions: a supreme governing body with budgetary and appellate powers, an executive body to administer the funds and property and an academic body to decide academic issues.

The supreme governing body of a university holds

the purse-strings and decides broad questions of policy. Its membership is numerous and represents a large variety of interests in the modern universities. In Oxford it comprises all University Masters of Arts and Doctors of the Faculties of Divinity, Civil Law and Medicine, resident and non-resident, numbering several thousands, and has no more than a shadowy existence. In Cambridge it consists of Masters, Doctors and Bachelors of Divinity. In the University of London it includes the heads of institutions, but no professors as such. In the provincial universities of England it consists of representatives of the professors, the non-professorial staff, the convocation of graduates, local authorities, nominated members and others. In Indian universities it consists of *ex-officio* members (mostly heads of government departments), persons nominated by the Chancellor, representatives of college principals, university and college teachers, headmasters, registered graduates, commercial and industrial interests, municipalities, local bodies, the provincial legislature and donors of large amounts. By reason of its functions and its size this body holds its meetings after long intervals.

It has been questioned whether in these democratic times the principle of nomination has not become effete, and whether any useful purpose is served by giving representation to municipalities and commercial bodies on the supreme governing bodies of universities. Enlightened opinion does not favour the retention of the practice of nomination on a large scale, such as obtains in Calcutta and the (West) Punjab Universities, but there is something to be said against the total abolition of nomination. There are always able educationists, among teachers and non-teachers, whose presence on the supreme governing body of a university would be beneficial, but who could never hope to be elected to it, because they cannot afford the expense of an election, or are temperamentally incapable of canvassing votes. Likewise, there are members of minority communities who have slender

chances of succeeding in election contests when they are pitted against persons belonging to communities which have an overwhelming majority in the electorate. If only to give a chance to these two classes of individuals, the principle of nomination has a *raison d'être*, although to prevent abuse the extent of its operation needs to be restricted and qualified.

In the provincial universities of England, which derive a goodly portion of their income from municipal, commercial and industrial bodies, it is considered fair that these bodies should have a voice in their government. In India, too, the universities are not without hope of receiving contributions from municipalities some time or other, although there are remote chances of their obtaining help from local boards, whose finances are usually at a low ebb. Commercial bodies, on the other hand, have been known to assist universities in this country, not only directly through donations given by their members individually for the advancement of commercial education, but also indirectly by the grant of facilities to university students for acquiring practical experience in business firms, and the recruitment of their administrative staff from qualified university graduates. Industrialists also have come forward with liberal donations to universities for advancing technological training and research, of which the University of Bombay furnishes an outstanding example. Apart from the concrete benefits thus derived by them, the universities stand to gain a great deal by establishing and encouraging valuable contacts with members of influential public bodies who can be of help to them, and through whom their work can come to be known and appreciated by a large circle of individuals outside their walls.

The executive body, which runs the day to day administration of the university and handles its finances, is the most effective body in a university. It consists of the Vice-Chancellor or Administrative Head, elected representatives of the supreme governing body and certain academic members who may be principals

or professors of colleges, or both. There is a common belief that the executive body of a university should have a fairly large proportion of men of affairs, as it is in charge of the university's finances, and academicians are notoriously unpractical in dealing with money. This belief has taken concrete shape in the constitutions of some Indian universities, which provide for a balancing of the academic by the lay element, even to the extent of allowing the latter to predominate. Academicians naturally resent this unjustifiable lack of confidence in their worldly wisdom. If the Hebdomadal Council of Oxford, which consists almost entirely of professors and lecturers, can be entrusted with the administration of one of the best known universities in the world, there is little justification for the fear that a preponderance of the academic element would upset the financial apple-cart in the Indian universities. The sooner this myth of the superior administrative ability and shrewdness of non-academic men is exploded, the better for the smooth running of the machinery of university administration. By no stretch of imagination can one bring oneself to believe that a professor who retires or loses his teaching post becomes a man of affairs overnight, and yet this is the flimsy ground for perpetuating the bar against professors seeking election to the executive body of a university. What would be more natural and just than that in academic institutions the prevailing voice should be that of the academicians rather than that of men of affairs?

The academic council is entirely, or mainly, composed of teachers, who are familiar with the requirements of courses of study, examinations, text-books and other academic matters. Their own experience is re-inforced, when necessary, by the advice of faculties and boards of studies which consist of experts in their own branches of study, such as languages, mathematics, economics, physics, chemistry or engineering. This is as it should be.

Much of the time and energy of teachers in univer-

sities is, unfortunately, taken up by elections. Misunderstandings and unfriendly feelings on grounds of actual or suspected breaches of faith are often engendered by the results of these elections. It must be recognized by those who legislate for universities that elections are a necessary evil and that the best way of minimizing the evil is to reduce their number and frequency as much as possible.

The head of the university administration in Oxford and Cambridge is called the Vice-Chancellor. He is elected or nominated from among the Masters or Heads of Colleges, and his term of office is one year in Oxford and two years in Cambridge. He is a salaried full-time officer. In the provincial universities the head, who is sometimes designated as 'Principal', holds his appointment for life like the President of an American university. He, too, is a paid official.

In the Indian universities the Vice-Chancellor is generally nominated by the Chancellor from among persons who have made their mark in public or academic life, or from a panel of names submitted by the supreme governing body. He holds office for two or three years, as the case may be. In many universities the post is an honorary one. In some, it carries a salary or an honorarium. In either case it enjoys a very high status, being regarded as a position of great honour. Whether it carries a salary or not, it has great responsibilities and strenuous duties attached to it. A period of two or even three years is much too short to enable the incumbent to give a useful lead to the university, or to help it to make a new departure in its policy, as it usually takes a long time to carry through any reform in university administration or policy, on account of the inevitable delays involved by the cumbrous procedure which is a common feature of most universities. In practice, a Vice-Chancellor who has proved a successful administrator is ordinarily continued for a second, or even a third consecutive term, in order to give him an opportunity to complete the good work begun by

him. It would, however, lead to greater efficiency of university administration, if the terms of office of all Vice-Chancellors were increased to five years.

Some universities have a Patron, a Pro-Chancellor or a Pro-Vice-Chancellor. The two first-mentioned dignitaries, like the Chancellor of Oxford University, are honorary officials with no duties attached to their position. A Pro-Vice-Chancellor is, however, expected to assist the Vice-Chancellor in his duties and to act for him in his absence. The recent trend of opinion in Indian universities with regard to the appointment of Vice-Chancellors is that they should no longer be nominated by Chancellors, but elected by the supreme governing bodies. This reform, if pressed for by the universities, is not likely to be long delayed by the popular governments now in power.

It is not unusual to find sharp differences of opinion arising among the several university bodies on academic questions, but these are smoothed over by the sweet reasonableness that prevails in the end. Before a question is finally decided, it has to run the gauntlet of a number of university bodies in succession. As some members are common to more than one body, it often happens that, if a proposition sponsored by such a member is thrown out by one of the bodies, he does not miss the opportunity of reviving it and fighting for its acceptance before another body. Discussions are thus apt to proceed in a seemingly endless manner, until some one puts a stopper on them by moving a closure, and the question in issue is disposed of by a snap vote in a thin assembly. Much university time and money could be saved by a simplification of the procedure and a clearer demarcation of the functions of the different bodies, which would prevent their overlapping. This is one of the reforms demanding urgent attention.

CHAPTER XIV

RESEARCH AND TEACHING

The advancement of knowledge, or research, and the diffusion of knowledge, or teaching, are the two main functions of a modern university. Research was practically unknown in the mediaeval universities of Europe. Cardinal Newman was largely influenced in his views on university education by the mediaeval universities, and was, therefore inclined to lay greater emphasis on the teaching than on the research aspect of a university. This is, perhaps, the true explanation of his dictum that "the diffusion and extension of knowledge rather than the advancement" is the object of a university. He re-inforced this opinion by adding: "I do not see why a university should have students, if its object were scientific and philosophical discovery". The extreme opposite of this view is advocated by Bruce Truscot, according to whom only research workers are essential to the idea of a university, and "there could perfectly well be a university which, like All Souls College, Oxford, had no undergraduates at all; and, instead of teaching, replenished its ranks by the choice of scholars who had been taught elsewhere, devoting itself entirely and exclusively to the pursuit of knowledge"¹. Steering clear of these diametrically opposite views, the University Grants Committee of Great Britain has put forward the view that a university is as much concerned to increase as to impart knowledge², a view which is generally accepted today.

The fact is that there is no real antagonism between the function of teaching and that of research. A university teacher has to teach, train research workers and

1. *Red Brick University*, p. 49.

2. See Report for 1936, p. 24.

do research himself. "A purely teaching university, still less a purely 'research institute', is not really a university"³. Basic studies cannot be divorced from research because there is an organic connexion between them. No research worker can achieve valuable results unless he is well-grounded in the fundamentals of his subject, be it natural science, history, sociology, economics or any other. The teacher, on the other hand, gains by doing research himself, inasmuch as he rises in the estimation of his students as a person who can speak with authority on his subject, being himself a co-worker with other scientists who have done original work. By engaging in teaching, a research worker learns the art of presenting the results of his work to the public in an attractive form, and familiarizes himself with the broader aspects of the subject in a small part of which he has specialized. It would, therefore, benefit the university, the teacher and the students alike, if every teacher took some part in actual teaching and carried on his own research at the same time. The allocation of his time between the two activities would depend upon the teacher's own aptitude and ability as well as upon the needs of the department. Teaching need not be regarded as inferior to research, because by his personality, masterly handling of his subject and infectious enthusiasm a teacher can stimulate the mind and imagination of his students to an independent effort to observe and collect facts and make their own contribution, however small at first, to the knowledge of the subject.

The German universities have, for almost a century and a half, been fruitfully engaged in teaching and research. As observed by an eminent English professor, one of the serious defects of British universities is the imperfect organization of advanced study, more particularly in the various branches of the arts, and an

3. Sir Charles Grant Robertson: *The British Universities*, p. 55.

imperfect provision of post-graduate and research studentships. Post-graduate work has not received adequate encouragement in Great Britain. The Ph.D. degree was instituted by the British universities only towards the end of the First World War, mainly to attract students from America, the British Dominions and India.⁴ The degree involves three years of work under the guidance of a supervising professor, followed by the submission of a thesis which makes an original contribution to knowledge. The American universities, on the other hand, which began from nothing in the year 1876 had, within a period of fifty years, made giant strides by offering facilities for advanced teaching and research and establishing the most up-to-date laboratories at Harvard, Yale, Columbia, Chicago and other universities, which were as good as, if not better than, those of any other country in the world. They were conferring the doctorate long before the British universities even thought of instituting the degree, although in recent years the status of the American degree has been considerably lowered by its being frequently awarded for work amounting to no more than a mere collection of data without any attempt at analysis.

It is worth noting that the Indian universities, which began their work as purely affiliating institutions, assumed teaching functions and commenced to encourage research about the same time as their British counterparts. Calcutta gave the lead in 1917, and Bombay and Madras followed on its heels. The more recent Indian Universities are very much alive to the importance of scientific teaching and research. Today it is a truism that the reputation of a university depends upon the reputation of its research departments.

The development of research in the modern universities has mainly been in the branches of natural science and technology, though the spirit of research has been

4. Ernest Barker in *The University in a Changing World* (Eds. Walter M. Kotschnig and Elined Prys), p. 91.

in evidence, to a smaller degree, in other branches of study such as history, archaeology, politics, philology, economics, sociology and educational psychology. It has been observed that "research in the universities has appeared as a natural outgrowth of individual investigations undertaken by the teaching staff".⁵ Scientific research involves the equipment of laboratories with costly apparatus, experimental raw material, like chemicals, and salaries for the research staff, laboratory assistants and mechanics, all of which means heavy expenditure with no prospect of an immediate, tangible return. The universities, which are hardly able to pay the salaries of their teachers from their fee income, would be unable to undertake research without financial assistance from outside. This assistance proceeds from two important sources, viz., grants from government departments and donations from industrial firms and individual industrialists.

Government assists the universities directly by paying the salaries of research workers or bearing a part of the burden of such salaries, and indirectly by appointing university men to posts in government departments and including university teachers on their advisory committees. There is nothing unusual in this, since the universities today occupy the most important position in fundamental research. The War of 1914 gave the much needed impetus to research in the British universities. Research, before the War, had been of a casual nature, undertaken by professors and lecturers in what little time they could spare after their day's teaching was over. The importance of scientific research to the winning of the War made the Government of Great Britain alive to the need of encouraging the universities to undertake research in a more systematic and serious manner, with the consequence that the subsidized, whole-time, senior research worker became a common feature of the research departments

5. J. D. Bernal: *The Social Function of Science*, p. 35.

of universities.

Industrial firms sometimes give subsidies to universities for carrying out research either of a general character or connected with specific problems in which the former are interested. Thus, the Anglo-Persian Oil Co. provided for the new chemical laboratories at Cambridge in 1920. More often than not, the industrialist donor, whether a firm or an individual, supports special researches carried out in university departments, partly by members of university teaching staffs and partly by research fellows paid for by him. This kind of subsidized research creates two problems. One is that the firm which gives the subsidy expects the worker to maintain secrecy about the nature of the subject of research and of the results obtained. This is not in keeping with the spirit of academic research, which believes in making the results available to the entire scientific world. The other is that the university teacher working on the research problem is liable to neglect his own work in the university by devoting most of his time and attention to the specific problem, if he is in receipt of remuneration from the firm, or even if he has a prospect of employment in the firm on attractive terms at some later date. Neither of these considerations need deter universities from accepting such schemes, provided that the entire cost of the research, including the salaries of workers, is borne by the firm. The universities should rather welcome them because of the bonds of sympathy and goodwill they help to create between the universities and industry, often resulting in the firms making generous financial contributions to the funds of the universities or employing their graduates who have acquired research experience in this manner. The universities need to be on their guard against allowing their teaching staff to take up too many of such research schemes lest the general research work of the department should be neglected. The best guarantee against a teacher advancing the firm's interests to the detriment of his legitimate work

in the university would be to refuse to allow him to derive any pecuniary benefit from the firm by way of allowance or otherwise, and also to lay down a condition in his agreement of service that he will not accept employment under any firm subsidizing a specific problem of research, for a fixed period of, say, five years after he leaves the service of the university, should he do so of his own accord. A refusal to solve any specific problem of industrial research for industry would be the surest way of alienating the sympathy of just those whose goodwill and support are essential for the development and progress of a university's research departments.⁶

The research worker in universities is part-student and part-teacher. The Director of Research, or head of the department, helps his co-workers by setting them problems or guiding them from time to time. The practice with regard to the publication of the results of research is to send them to well-known scientific journals in the joint names of the director and the individual research worker.

The universities of India have not in the past been as fortunate as those of America or Great Britain in obtaining large contributions from industrialists or from Government. With a national government in power, and with the Department of Scientific and Industrial Research, the Agricultural Research Council, the Indian Research Fund Association and the new University Grants Committee functioning and collaborating in the task of winning for India a place among the scientifically advanced nations of the world, it is not too much to expect that the universities will hereafter be more generously treated than they have been hitherto. One may legitimately hope that Indian industrialists, in the new India that has emerged from a long-drawn struggle for political and economic independence, will, in their own enlightened self-interest, vie with the industrialists

6. *Vide*, J. D. Bernal, *op. cit.*, pp. 69-70—Note 18.

of America and Great Britain in helping the progress of research in the universities by making munificent benefactions, with as few restrictive conditions as possible, to enable them to carry out their research programmes in the most efficient manner, and enable the nation to advance to a place of deserved honour among the foremost countries in the world of science.

It is unnecessary to add that it is very desirable that the universities themselves, with such resources as are at their disposal, do not stint money for the advancement of sound research in all branches of knowledge, but regard it as one of their main obligations to make research and publication grants to genuine and deserving workers in different fields of original work. Even if they are obliged by the stringency of the times to curtail their normal expenditure in order to balance their budgets, research and publication grants should be the last to be axed.

CHAPTER XV

TEACHER AND STUDENT

Close personal contact between the teacher and the student is one of the essentials of a university education. This was a striking feature of the relationship existing between the *guru* and the *shishya* in the ancient Indian universities. The student in those universities paid no fees for his education, but rendered personal service to his teacher, which included the begging of alms for him, as consideration for the instruction received. At the end of his course he might or might not pay his teacher a lump sum according to his means and inclination. The teacher was the guardian of the moral and physical welfare of his pupil as well as his instructor. "The salient features of the educational system outlined in the Dharmashastra works are the high and honourable position assigned to the teacher, the close personal contact of the pupil with the teacher, and individual attention, the pupil's stay with the teacher as a member of his family, oral instruction and the absence of books, stern discipline and control of emotions and the will, cheapness".¹

Oxford and Cambridge, among the British universities, establish a personal relationship between the tutor and the undergraduate, which is of much the same kind, save that the undergraduate pays tuition fees to the university and that no personal service is expected of him. The residential system in vogue in these universities enables the tutor and the student to participate in a common corporate life. The tutorial system is spreading to the provincial universities because of the generally accepted view in England that personal contact between teacher and taught is a *sine qua non* of

1. Mahamahopadhyaya Dr. P. V. Kane: *History of Dharmashastra* (B.O.R. Institute), 1941, Vol. II, Part I, p. 369.

true education. Such contact is lacking in the Scottish universities which are non-residential. In the graduate schools of the American universities contacts between teachers and students are rare, and the position is the same in India except in the few residential and teaching universities.

Syllabuses and examinations are, at best, poor substitutes for personal contact. This is one of the chief reasons why the 'external' degrees of London University are considered inferior to its 'internal' degrees. The formation and strengthening of character are no less important than the development of the intelligence of the student. The years which he spends at the university are the most formative period of a young man's life, when his mental horizon expands, his interests multiply and his emotions need to be controlled and trained. The best way of helping his transition from adolescence to manhood is to put him in charge of one who will give him sound advice, not through didactic class-room lectures, but, in an informal manner, through friendly talks. Advice administered in a dictatorial fashion has the effect of creating either rebels or spineless individuals out of young men who want full freedom to shape their own ends. The tutor occupies, for the time being, the place of the parent and, with tact and experience, he can lead the young mind gently in the right direction, even as the expert vine-grower who tends the creeping vine with solicitude and tenderness, lest he should injure its natural process of growth by rough handling.

The success of a university teacher is not to be judged by the 'classes' or 'honours' his students secure at university examinations, nor even by the impression he creates during the lecture hour. The results of examinations and the impression are soon forgotten. On the other hand, if the teacher by his personal example has been able to influence even one or two students out of a class of a hundred to do something in later life, which adds even one iota to the happiness of the human

race, or one more brick to the edifice of human knowledge, he may be said to have succeeded beyond measure. It is the invisible way in which he moulds the character, the mind and the career of his students that will abide with, and be remembered by, them years after he is dead and gone. No teacher can wield this kind of influence, if he is seen only during the lecture hour and vanishes from sight before the echoes of the college bell have died on the air. He must join, and mix freely with, his students in the library, on the playing field, in the debating hall and in the several corporate activities of university or college life that add savour to it. He must interest himself generally in what his students do outside the lecture hour and outside the class-room. This is the nearest substitute for the tutorial system that it is possible to provide in day colleges.

The lack of discipline among university and college students in India, about which we hear so frequently at the present day, is not due to the students alone, but is attributable to two important causes, namely, the unwieldiness of the classes which college teachers are called upon to teach and the deterioration in the quality of teaching, both of which are defects capable of being remedied. It is only recently that Indian universities have turned their attention to the desirability of restricting the number of students in a class or division of a class. Some have fixed the limit at 150, which has also been accepted by the British universities as a reasonable limit. It does not follow, however, that the normal class can have the maximum number without detriment to the efficiency of the teaching. An inexperienced lecturer would find it difficult to hold the attention of 150 students. Even an able and experienced lecturer may have to strain his faculties to make his lectures effective. When the number becomes unmanageable, the teacher finds that, instead of lecturing to the students on the subject in hand, he has to read a lecture to them on how they should behave. The

150 rule is a safe working rule, suitable to a poor country like India, where it is not easy to keep pace with the ever increasing demand for university education by starting new colleges every year.

With the co-operation of the colleges and government, the universities can do a great deal to check the deterioration in the quality of teaching. For instance, they could exercise a stricter supervision over teaching appointments in colleges by scrutinizing each new appointment with care, and insisting on adequate qualifications and teaching experience. This is not enough, however. The personality and other qualities essential for a successful teacher cannot be assessed on the basis of the returns which colleges make regarding new teaching appointments. The appointing authority, which interviews candidates before making an appointment, and the principal of the college concerned are the best judges of these qualities, and the universities have necessarily to depend on their judgement.

The real hitch lies in the meagre salaries which are paid to junior and even senior lecturers and professors. This is primarily an economic question, which can only be solved by Government aiding the colleges with substantial grants to enable them to pay reasonably high salaries to attract teachers with the necessary qualifications, and by the colleges themselves being more generous to their teaching staff. Here, too, the universities have recently been trying to improve the lot of the teachers by prescribing minimum salaries and grades and conditions of service, ensuring security of service and suitable provision against old age and sickness. The universities, as at present constituted, are, however, unable to enforce the adoption of these rules as they have no legal sanction behind them, save when they are affiliating a new college. It would also not be easy for them to justify the imposition of conditions which involve higher expenditure unless they could themselves give financial aid, or exert their influence on Government to give it, to the colleges.

CHAPTER XVI

TEACHERS AND THEIR PROBLEMS

I

A university is what its teachers make it. This was literally true of the earliest universities which grew up around a group of teachers who had attracted pupils by the fame of their learning and who, after a time, organized themselves into corporations for protecting their interests and fixing certain standards of admission, study and performance for those who approached them for enrolment as teachers or as students. Recognition of their status as universities by the Church or the State followed later. They infected their disciples with their own zeal for learning and scholarship, and taught more by personal example than by formal instruction. In the ancient universities of India these teachers or professors, as they would be called today, were treated with the greatest respect, since the universities owed their existence and their reputation to them. They were given the best rooms in the monasteries which housed the universities, were waited upon by their pupils and servants, and carried about in sedan chairs as befitted their dignity.

Even today, the universities of Great Britain are governed by teachers who form autonomous bodies, administering their own funds, framing their own courses of study and appointing their own colleagues. They dominate in the Councils of the Universities of Oxford and Cambridge. In the provincial universities they share the power with others in the supreme governing body. In Germany the teachers enjoyed a privileged position before the last War and were under the orders of no one. Their only duty was to advance and conserve knowledge, and they were at liberty to

derive profit from industry while teaching at the university. The position and status of teachers in American universities are not enviable, and still less so are those of teachers in Indian universities.

Teachers in modern universities fall into two main categories: university and college teachers. The first category comprises full-time and part-time university teachers and recognized university teachers, and the second, professors, assistant professors, lecturers and demonstrators. Full-time university teachers may be professors, readers, lecturers or demonstrators. The designations vary slightly in different universities and colleges, but the hierarchy is uniform, the professor being the head of a department of study, the reader coming next after him and the lecturer next after the reader. It is, however, not always the case that a teacher goes through the various stages, one after another, or that he becomes a professor only after he has grown grey in the profession, although that is the natural mode of preferment in England. In India it is not unusual to see a young man with a post-graduate degree, fresh from the university and with no teaching experience, pitchforked into a professorship, while a very senior teacher may be lingering on the lower rungs of the ladder because he happened to enter government service as a class II or a subordinate class lecturer. Again, in many private colleges a teacher is called a 'professor', irrespective of his standing or position. While one can understand the classification of teachers as professors, readers, lecturers and demonstrators, according to their qualifications, experience and ability, the compartmentalization of members of the government educational service into class I, class II and subordinate cadres is a relic of barbarism, which should be done away with in modern times. It is a new caste system, introduced by the British Administration, no less pernicious than the ancient caste system of the Hindus which is not countenanced by civilized society at the present time. Because of it many a brilliant

teacher in government colleges, with far greater ability and longer service to his credit than the person placed over his head in class I by some fortuitous circumstance, has retired from service without having ever had a chance of stepping from class II into class I. A greater uniformity in nomenclature, if it could be agreed upon among universities and colleges *inter se*, would prevent confusion in assessing the merits of teachers belonging to different institutions, whenever an occasion arises for making a selection from them on the basis of merit. It would also facilitate the exchange of teachers among the universities, which has been strongly advocated in the Sargent Report.

The selection of persons for appointment to teaching posts in universities and colleges presents difficulties. The prevailing practice of universities in India is to appoint selection committees, consisting of the Vice-Chancellor, one or two members of the university possessing special knowledge of the subject in which the appointment is to be made, and some experts unconnected with the university. It is to be expected that, with a committee thus constituted, a selection on the basis of pure merit would be ensured. The appointing authority being different from the selection committee, it sometimes happens that there is a sharp difference of opinion between the two, and the appointing authority, which is generally the executive council of the university, treats the recommendation of the committee with scant courtesy. Not that selection committees are incapable of errors of judgement or even of occasional perversity. If the personnel of selection committees is appointed with care, and if their judgement is not vitiated by fraud, it should be accepted by the appointing authority, even as the verdict of a jury is accepted by the presiding judge. On the other hand, if the appointing authority is unable for any good reason to accept the selection committee's recommendation, it should either ask the latter to reconsider its decision, or record its own reason for disagreeing with

it. This would be a healthy check on the capricious rejection of a recommendation. The private colleges also could adopt a similar procedure. So far as Government are concerned, the Public Service Commission acts as a selection committee, whose independent judgement is an invaluable guide to them in making appointments. The Central Advisory Board of Education (in India) has made valuable suggestions for the selection of university and college teachers which, if acted upon, would put an end to suspicions of favouritism and injustice which are sometimes created in the minds of the public who are not in full possession of the relevant facts. As has been rightly said, "the robe of the professor must be as stainless as the ermine of the judge".

The recognition of university teachers is one of the means adopted by universities for carrying out their work, especially work of a post-graduate character. The University of London has a large number of such teachers. They are mostly undergraduate teachers, appointed by the Schools and other institutions, who are not in the service of the University, but on whom it puts its hall-mark of recognition so that they may train up candidates for its 'internal' degrees. No clear principles govern recognition, which is generally given *ad hoc*. The affiliating universities of India have a system of recognition of post-graduate teachers which follows the London model. Recognition serves the same purpose as in London, and is highly valued by college teachers, as it adds to their status and privileges, bringing them one step nearer to full-time university teachers, and giving them a right to vote in university elections on the basis of their recognition. Recognition is granted by the Executive Council or the Syndicate on the recommendation of the Board or Council of Post-graduate Studies, a body specially constituted to supervise and control post-graduate instruction. The system has not worked successfully where the recognition does not impose a positive duty upon the teacher to

teach, because he does not receive any payment for the work done by him. The system can only be improved by granting recognition sparingly and by remunerating the teacher adequately for whatever work is expected of him.

For its research work a university has to depend mainly on its professors who contribute to it by their own work as well as by guiding research students and junior research staff in their work. In an earlier chapter we mentioned the advantage to the university of a teacher engaged in research in addition to teaching. Two conditions are essential for turning out good research, namely, enthusiasm in the teacher and the co-operation of the institution where the research is carried on. A teacher who takes a narrow view of his duties is likely to feel complacent when he has delivered his lectures according to the fixed schedule without missing a single one. There are, however, ambitious teachers, with a touch of the 'divine discontent' in their composition, who are not satisfied with their lecturing work, which they do very well indeed, and who are keen on doing some original work in whatever time they can spare after going through their daily routine. Universities and colleges, in their own interest, must encourage such teachers and make it easy for them to do independent research, or to help junior workers, by reducing the burden of their lecturing work. Some Indian universities lay it down as a condition of recognition that a post-graduate teacher shall not be saddled with lecturing work for more than a certain number of periods a week. Administrative work, too, can prove a serious stumbling block in the way of research, and those who devote themselves to research should, therefore, be freed, as far as possible from the burden of administration. Another hindrance to research in the universities is committee-work in which some teachers find congenial occupation. As Bruce Truscot has forcibly put it, "The committee-man hardly ever sees research in its true perspective, for in an atmosphere

heavy with argument and thick with ordinances, resolutions and points of order, creative thought does not readily flourish".¹

In a free country no fetters should be placed on the freedom of professors in expressing their views on political or social problems. During the Fascist regime in Italy each professor had to take the oath of allegiance to the State. The German professor enjoyed far greater freedom. In the British universities there is no restriction on the free expression of a professor's views; on the other hand, professors are sometimes active members of political parties. In the academic sphere, more than in any other, freedom of thought, speech and writing ought to flourish. The Debating Unions of Oxford and Cambridge rightly enjoy the fullest freedom to discuss problems of contemporary politics in a manner which would have been considered improper by the erstwhile rulers of India for university students in this country. There is no reason why the same freedom should not prevail in academic circles in India, which is now a free country. Not only should professors be at liberty to speak without reserve when lecturing to their classes on politics, economics or history, but they should be encouraged to guide public opinion in matters which affect the citizen directly or indirectly. They can be trusted to do this far better than demagogues, as they can speak with restraint and handle current topics with academic detachment on a high level. They could thus help to counteract the harmful effects of interested propaganda in the columns of partisan newspapers. In addition to giving a correct lead to the public they could in this way forge a useful link between the universities and the outside world of the working man and the middle classes who are the inheritors of political power today, and on whom the universities have to depend for their future progress and prosperity.

It is strange that, while a course of special training

1. Bruce Truscot: *Red Brick University*, p. 75.

is regarded as essential for those who want to enter the learned professions of medicine, engineering, law and even of teaching in schools, little thought has been bestowed on the desirability of providing some kind of training for college teachers. Any one with a good post-graduate degree is considered fit to handle college classes without any theoretical background or apprenticeship. There is some amateurishness about the whole thing, and teaching college classes has become a matter of trial and error. Unless he is a born teacher, a young arts or science graduate, howsoever brilliant, naturally yields to the temptation of passing on to his students the notes which he took down in his student days of his own professors' lectures with, perhaps, a few changes. Though experience is the best teacher, and no amount of theoretical knowledge can make a good teacher of a person lacking the innate qualities of one, a short course in the principles of education, the history of education and recent developments in educational practice would go far in providing a junior lecturer in college with a useful background, and with a short period of apprenticeship, spent in listening to lectures delivered by senior professors, he would be far better equipped to lecture than he is today. At any rate, this is a matter worthy of consideration by educationists and educational experts. Junior college teachers would also gain immensely by going on study leave to foreign countries or to other Indian universities, where they would have opportunities of coming into contact with teachers of a high calibre from whom they could learn new methods of teaching, or pick up new ideas which would help them to improve their own.

The system of exchange of professors, which has been in vogue in Germany, has not yet taken root in either the British or the Indian universities. Such a system is bound to benefit both teachers and students by establishing new cultural contacts. The visiting professor must, however, spend at least a term in the university which invites him, if the visit is to bear any

fruit. It would be necessary, as a preliminary step, to prepare a list of universities which would be willing to invite members of the teaching staff of other universities and also to depute their own, as well as of university and college teachers agreeable to offer their services as exchange professors. The Educational Department of the Government of India has made a start in this direction. The terms of exchange would, of course, require to be settled in each case by the negotiating universities in consultation with the teachers concerned, preferably through the intervention of the Inter-University Board, the Universities Bureau of the British Empire and similar co-ordinating organizations. This should not be an insuperable task, since the grades of teachers in the Indian universities are not so diverse as to make mutual adjustments impossible. Once the universities make a start, the affiliated colleges can be roped into the system of exchange without much difficulty.

II

We may now pass on to consider a very important question affecting college teachers, namely, the economic question of their salaries and conditions of service, which cannot but have a direct bearing on the quality of the teaching, the status and prospects of the teaching profession and the teacher's position in society. These vary widely in different countries, but there is one common feature, namely, that the teaching profession pays the least dividends in the shape of money and the good things of life, with the inevitable consequence that it does not attract the best brains in the country, save in the rare instances of individuals who combine keenness of intellect with a lofty idealism and a desire to do selfless service. As the number of teachers required is very much larger than the number of such selfless workers, the need for improving the material prospects of the teaching profession cannot be over-emphasized.

How does the teaching profession stand today in different parts of the world, when compared with other professions and vocations requiring a much lower order of intellectual ability and training? Even in the land of the Almighty Dollar, where one would have expected a high standard of payment for teachers, as Flexner points out, "the football coach is better known to the student body and the general public than the President; and professors are, on the average, less highly remunerated". In 1926-27 in more than a hundred colleges and universities the highest remuneration paid to a professor was 12,000 dollars, the average 5,158 dollars, and the highest salary paid to an athletic coach was 14,000 dollars, the average being 5,095 dollars, so that it paid better to be an athletic coach than a university professor.²

In England the salaries of university teachers are relatively higher than in America: the average salary of a professor in 1928-29 was £1,082 and that of readers and lecturers was nearly half that figure. The result is that there is not enough inducement to enter academic life, but owing to the simple and dignified manner of life of university teachers it is not devoid of amenities. University teachers do not hanker after additional income from industry and other sources, as professors did in Germany of the pre-war days. There are usually three grades of teachers, classified according to the salaries received by them. The lowest grade, viz., that of the assistant or junior lecturer, begins at £250 and rises in three or four years to £300 per annum. The first year of his service is of a probationary character. If he proves to be deficient in teaching ability, or shows no inclination for research, he is not encouraged to continue. If, on the other hand, he shows promise, he rises in the grade and may be promoted to grade II, and even to grade I should he show

2. *Vide Universities, American, English, German*, pp. 65, 206.

genuine scholarship. At one time, the junior lecturer did not receive more pay than a senior porter or a nursery governess, and had to eke out his income from other sources.³

Turning to conditions in India, the position of teachers is far worse. The universities pay their professors anything from Rs. 600 to Rs. 1200 a month. Readers receive from Rs. 400 to Rs. 700, and lecturers from Rs. 200 or 250 to Rs. 500 *per mensem*. The figures vary in different universities, but not to any great extent. When we come to the colleges, the disparity between government and private colleges becomes very marked. In government colleges the teacher in class I rises from Rs. 300 to Rs. 900, the teacher in class II from Rs. 170 to Rs. 500 and the teacher in the subordinate grade from Rs. 130 to Rs. 350 *per mensem*. Appointments are often made on a temporary basis for one or two years only, excluding the long vacation, thus depriving the teacher of his salary for the vacation period. In the non-government colleges lecturers start on Rs. 100 and professors on Rs. 150 to Rs. 200 *per mensem*. The maximum salary of a professor rarely exceeds Rs. 350 and may be as high as Rs. 450 or even Rs. 600 *per mensem* in a very few colleges. In what are popularly known as 'Society Colleges' life-members who pledge themselves to serve on a fixed permanent salary for a period of twenty or twenty-five years draw between Rs. 150 and Rs. 200 a month. They enjoy a few amenities, such as free education for their children in the Society's schools and colleges and the benefits of a life-insurance policy of about Rs. 3,000. In most of the non-government colleges provident fund benefits have been introduced. Some universities have laid down a minimum of Rs. 100 a month for lecturers, and some have prescribed uniform scales of pay for different grades of college teachers. These scales become ineffective unless the universities receive the co-operation

3. Bruce Truscot, *op. cit.*, p. 80.

of the colleges, because the former cannot enforce them under the powers vested in them by legislation, although they may compel a new college seeking affiliation to adopt such scales as a condition of affiliation.

One very regrettable feature is that junior lecturers and demonstrators are often made to work hard while they receive low salaries. Appointments are frequently made on a part-time basis in order to circumvent the rule of the prescribed minimum which is intended to apply to full-time teachers, and lecturers and demonstrators are paid a mere pittance under the glorified name of an 'honorarium'. The universities have recently been trying to improve the conditions of service of college teachers by framing rules governing privilege, casual and sick leave, provident fund, termination of service and vacation salary so that the teachers may not be at the mercy of their employers.

Unions of college teachers, which have recently come into existence, are trying to obtain better terms and conditions of service for the teaching profession, but they have not so far been able to make their influence adequately felt. Even with the pressure exerted by universities on the affiliated colleges, the economic condition of the college teacher is unenviable, as he is hardly able to keep his head above water. His cultural life, too, is starved for want of money to buy books and to share in the social amenities essential for a person of intellectual pursuits. The average college teacher thus lives on the narrow margin between poverty and a hand-to-mouth existence and dies in penury with hardly any provision for his family, unless he has been able to put by some savings from examinerships, private tuitions or the writing of cribs. His life is, therefore, one of painful drudgery, absence of comfort and frustration of hope, and he leaves the world no better than he found it.

The question whether teachers of science and technology should be permitted to derive profit from industry has been a fruitful source of controversy both

in England and in India. The practice of universities in this matter is by no means uniform. Some universities grant the permission without imposing any conditions; others claim a share in the profits; still others refuse permission altogether. On principle, no teacher should be allowed to make a profit, for it would create a conflict between his interest and his duty. If permission is granted at all, there must be an effective check on the amount of profitable work he undertakes and the profit should, in the first instance, go into the coffers of the university, to be shared later between it and the teacher in any reasonable proportion that may be agreed upon. The best policy, perhaps, would be to pay the teacher a handsome salary which does not leave any scope for temptation to look out for other sources of income. The university could then retain the entire profit for further expanding its research activities. An exception would be necessary where the teacher has taken out a patent on a process invented by him, as the university would be under a moral obligation to give him a substantial share in the profits derived from the patent. The practice in some universities is to divide the net profits from the patent between the university and the teacher in equal proportions.

There are two other matters of great moment to teachers, which are connected with each other, namely, tenure of service and the age of retirement. Without security of tenure no teacher can be expected to devote his undivided attention to his work. The thought that his services may be discontinued at any time, and that he may be turned adrift into the world to look out for another opening cannot but be disturbing, and may deter him from undertaking any long-term programme of research, because of the uncertainty of his continuing in the same place. This fear is not an imaginary one, as neither universities nor colleges are entirely free from party politics, and teachers are sometimes not re-appointed on the expiry of the term of their contract, not because they have proved incompetent, but because

the party in power does not want them. Security of tenure is essential in the interest of both the teacher and the institution. It has been urged by some, with considerable force, that a professor with security of tenure, has no external stimulus to do more than the minimum either of research or of teaching, but a professor who requires an external stimulus for doing research is not likely to turn out original work of a high order, since no results worth achieving can be obtained without an inner urge and a capacity for taking pains. The genuine research worker looks for his reward to the contribution he is able to make to knowledge and to the plaudits of savants and scientists rather than to a secure and comfortable position in the teaching profession.

In the British universities, whether the ancient ones of Oxford and Cambridge or the newer provincial ones, the existing practice is to retire professors and lecturers at the age of sixty-five. In India the age of retirement in government service is fifty-five, and extensions after superannuation are hardly ever given. The non-government colleges have no fixed rule, and professors in them have been known to work up to an age well over sixty-five, though such instances are few. Owing to the climate and other conditions of life in this country, the average individual shows signs of declining mental and physical vigour after sixty. Some universities have, therefore, fixed the age of retirement for their teaching staff at sixty years, which appears to be a good rule, from the point of view of efficiency and also of fairness to the younger and junior members whose natural ambition to step into the higher posts would be thwarted if the senior incumbents were allowed to stick to them too long.

CHAPTER XVII

STUDENTS AND THEIR ACTIVITIES

I

It is believed that in ancient India the average student must have been about twenty years of age at the time of his entry into the universities, although the *bhikkus* (Buddhist novices) joined them at a much lower age—about fourteen or fifteen. In the mediaeval universities of Europe most of the students were over eighteen years old, and a few were only fourteen. Today the average age of admission to the British universities is eighteen. In the Indian universities it is about seventeen, although there are instances of students matriculating at thirteen and even twelve. Some universities have a lower age limit; in others such limits existed once, but have been abolished since. Some lower limit would appear to be desirable because, barring exceptions, a student cannot possibly get the best out of a university education, unless he has attained a certain maturity of intellect, which cannot be gauged solely by the results of an entrance test. An attempt to impose an age limit, where none exists at present, is not, however, likely to be viewed with favour.

No restrictions are imposed on the admission of students to British, American or Indian universities on grounds of race, religion or sex, although Oxford and Cambridge did have restrictions of a denominational character until about the middle of the nineteenth century. At one time, women were not admitted to their courses of study, examinations and degrees on the same conditions as men. London was the first British university to overcome its prejudice against the fair sex, and to throw open its degrees to women, in 1878. Victoria University was the first provincial university

to follow the example of London, in 1880. The Scottish universities did likewise in 1892. Oxford and Cambridge, the citadels of orthodoxy, took a longer time to get over their prejudice. Cambridge admitted women to the Tripos examinations in 1872, and it was not till the end of the first World War, when women could stand for election to Parliament, that they came to be admitted to 'titular' degrees. In 1926 they became eligible for university teaching posts and the membership of university bodies. Oxford admitted women to examinations in 1884, to degrees and full membership in 1920, and to teaching posts much later. All restrictions against women have been removed and, at the present day, they enjoy all the privileges to which men are admitted: prizes, scholarships, degrees, membership of Boards of Faculties, teaching and administrative posts. In India also, women enjoy the same rights and privileges. The American, British and Indian universities are all co-educational institutions, although they have several colleges which are intended exclusively for women students.

The residential system of Oxford and Cambridge, described in an earlier chapter, introduced discipline into the mediaeval English universities which, in an earlier period, resembled the contemporary universities of mediaeval Europe in the riotous and lawless life of their students, some of whom did not improve much in their behaviour even after taking orders. It is surprising that, while healthy sport and exercise were forbidden in the universities, no serious attempt was made to curb the unruly tendencies of the students of those days.¹ The students in the ancient Indian universities, including Nalanda, led a life of rigorous discipline, quite the opposite of that of the students of the mediaeval European universities of the twelfth and thirteenth centuries. Sports, games and amusements of all kinds were banned, but, strangely enough, gambling seems to

1. G. M. Trevelyan: *English Social History*, p. 54.

have been a common vice among the students of Nalanda. It is a matter for great satisfaction that the standards of morality and discipline obtaining among students in universities all over the world, at the present day, are commendably high in comparison with those which prevailed in the universities of mediaeval Europe or ancient India.

The social status of students receiving a university education has undergone changes which have kept pace with the transfer of political power. The earliest students in the British universities belonged to the aristocracy, the clergy and the well-to-do among the middle class, who wanted to become accomplished gentlemen or qualify for public life or for one of the learned professions. Today we find the sons of the factory worker, the coal miner, the farmer and the labourer rubbing shoulders with the scions of aristocratic families and the sons of wealthy landholders and merchants. Universities are no longer the close preserves of the fortunate few, but the legitimate resort of young men with brains, irrespective of their birth or economic condition, at least, in countries like Great Britain and America, where the State and the nation have created a huge network of scholarships for poor students with ability. India is not likely to lag far behind, if a similar system of scholarships is established as recommended by the Sargent Report. In Germany, before the last war, students came to the universities mainly from the middle and lower middle classes; they were sons of merchants, officials, lawyers and doctors. The worker was not in a position to give his son a university education. In pre-revolutionary Russia the families of the workers and the peasants were seldom represented in the universities, which were full of sons of merchants, industrialists, clergymen, members of the learned professions and government employees. By the year 1928 half the number came from the homes of workers and peasants. The Soviet Power has converted the univer-

sities into real democratic institutions to which access is now free to all. It has even gone to the length of dispensing with entrance examinations.

With the democratization of university education, overcrowding has become a common feature of most universities, especially of the larger affiliating universities of India. The number of candidates appearing at their matriculation examinations annually is about 60,000 in Calcutta, 50,000 in (West) Punjab and over 40,000 in Bombay. There is no prospect of any decrease in numbers, though they may be spread out a little when new universities come into existence in the respective provinces. At present, the number seeking to enter the colleges is far in excess of the number they can accommodate, and a further selection by the colleges becomes inevitable. The result is that the door of the university is shut in the face of many thousands who are eager to enter, in spite of the new colleges which spring up every year and the herculean effort which the universities are making to meet the demand. The University of Madras recently granted temporary affiliation, as an urgent measure, to a number of new colleges, without going through the lengthy procedure prescribed for affiliation. Some permanent measures will be necessary for the solution of this number problem.

A large proportion of the students who knock at the doors of the colleges for admission, and even of those who enter them, are not really fit for university studies. They discover this rather late, when the examinations prove an insurmountable obstacle, and are obliged to give up studies in the middle of the course. The economic wastage due to failures at university examinations is a great drain on a poor country like India, which could only be stopped by a timely diversion into more fruitful channels of those who have no aptitude for higher studies. This problem will have to be tackled by the popular governments with the assistance of the universities.

There are, at the present day, very few students who enter the universities with the sole object of obtaining a liberal education. The landed aristocracy is getting poorer and poorer. The wealth of the country is accumulating fast in the hands of the mercantile classes who are accustomed to look for quick and substantial returns from the money spent by them. The middle and the working classes cannot afford the luxury of a university education for its own sake, though they may be willing to undergo heavy sacrifices to see their sons and daughters well-settled in life. The utilitarian aspect of education is thus receiving greater and greater emphasis. In America, as Flexner has remarked: "most college students look upon college as a means of getting ahead in life; for them the college is largely a social and athletic affair. Intellectual concentration would take too much time; it would restrict the students' social contacts. Besides, it doesn't really matter."²

The residential system, providing opportunities for close contacts between teachers and students and for a corporate life in which students belonging to different faculties can participate, is the best so far known, but it is too expensive to be introduced in India on an extensive scale, on account of the size of the country and the immensity of its population. The next best thing to do is to provide all possible amenities for bringing teachers and students together outside the class-room, and to see that the students take the fullest advantage of them. The 'external' student of London University, while enjoying the privilege of appearing at its examinations, derives no benefit from its corporate life, and the degree obtained by him can never hope to be ranked with the 'internal' degree as a mark of a definite standard of intellectual, moral and spiritual development. In so far as the 'external' side gives an opportunity to persons prevented by financial or other conditions from becom-

2. See *Universities, American, English, German*, p. 69.

ing 'internal' students to improve their prospects, its existence is fully justified. The 'work-student', i.e., one who earns and learns at the same time, has a distinct advantage over the 'external' student, but England does not provide the same wide opportunities as America to students who pay for their boarding, lodging and study by taking up odd jobs. Even in universities like Harvard, Yale, and Princeton nearly fifty per cent of the students earn money to pay for their education. Although the time and attention of this class of students are naturally divided, they learn to become self-reliant - at an early age and receive the benefit of a university education, which would otherwise have been denied to them for want of the means to support themselves and pay the cost of the education. In an ideal state of society the student should be free from all responsibilities, especially from the onerous one of maintaining himself during his student days, so that he can attend to his studies with single-minded devotion. The State owes a duty to its citizens to make this possible by providing scholarships and other financial aid for poor and deserving students. The number of such scholarships in India today is totally inadequate. The rich could not find a worthier object for their generosity than assistance to poor and intelligent students who are prepared to undergo any hardship for the sake of a university education.

The university student in pre-war Germany was a highly privileged individual. From the moment of his entry into the university he was treated as an adult, with complete freedom of movement and action. He could select his own teachers and migrate from one university to another at any stage of his career. The Scottish universities also give considerable freedom to their students to migrate, subject to the condition that one is not permitted to take one's degree from a university without having spent at least two out of three years at that university. This would not have been possible if the universities did not recognize each other's courses of study. In England migration is not permitted, and in

India it can only take place at certain recognized stages of a university course. Migration is not ordinarily allowed in the middle of a professional course of study, and the mutual recognition of examinations by the universities is often qualified or hedged in by several restrictions. It would, indeed, be advantageous if, in addition to examinations, courses of study of the same nature and length were also recognized. This would be a boon to the children of government employees who have to knock about from one university to another every time their fathers or guardians are transferred from one province to another. There can be no objection in principle to this being done, as the courses of study for corresponding examinations are more or less identical in the different universities.

While migration ought to be permitted for special reasons, such as a change of air or the transfer of a guardian, it should not be encouraged, since it may tempt students of poor calibre to migrate in the final term to universities which are notorious for the low standard of their examinations. Another equally serious consequence of frequent migration is that it destroys the cultural continuity of traditions and institutional loyalties. The 'nomadic' student is incapable of developing an *esprit de corps*. Having no local attachments, he is not at all likely to take pride in any of the universities through which he has passed. His interest in the universities where he has studied would be as evanescent as that of a railway passenger in the stations he passes through in his journey. In his eyes university traditions would have no meaning or value, and it would never enter his mind that he should do something for his *alma mater*.

Talking of the relationship which should subsist between a university and its *alumni*, attention may be drawn to the practice which prevails in the University of Pennsylvania of maintaining an up-to-date record of the career of each of its graduates and of inviting them to its gatherings from time to time. Gradu-

ates are expected to send brief reports of what they have been doing during the year. In this manner a bond of goodwill, sympathy and mutual interest is created and maintained between the university and its *alumni*. This may not be feasible in the affiliating universities of India from which thousands graduate every year, and which have no contact with their students except through the colleges. The teaching departments of Indian universities and the residential universities in India may follow the example of Pennsylvania University with advantage.

A University Information Bureau which helps students, not only to obtain information about courses of study in foreign universities, but also to get admission to them by forwarding and supporting their applications, is looked upon as a normal part of the activities of Indian universities. These bureaux, as official departments of universities, have, in the past, established an important link between them and government departments like that of the Educational High Commissioner in England which serves as a channel of communication with foreign universities. This system was adversely criticized as ineffectual and involving delays, which were often avoided by directly contacting these universities through their teachers. It would be far better, in the long run, for Indian universities to establish contacts with the larger foreign universities directly rather than through official channels, and to avail themselves of the services of non-official bodies like the Universities Bureau of the British Empire. Such a course would lead to more cordial relations between universities in different countries, as educationists understand one another better in the absence of government intervention and red tape.

Many universities, including Oxford and Cambridge, in England, and Calcutta, in India, have established 'Appointments Boards', to assist their graduates to obtain appointments in business and industrial establishments, educational institutions and other avenues

of employment. These Boards, consisting as they do of university men and representatives of commercial interests, serve as a highway between the universities and the business world, with a two-way traffic. University graduates, possessing the necessary qualifications and supported by personal recommendations from their teachers, pass over it into business, and industrial houses which are in need of them can be confident that the persons so recommended are the right type of persons. On the other hand, the representatives of commerce and industry, who cross it in the opposite direction to help the Board in its work, with their practical experience, get an insight into the work of the universities. Every modern university should have an 'Appointments Board' which, by enabling industry and commerce to secure the best talent available in the country, benefits both the employer and the employed.

II

One important question which, in the past, has been a frequent cause of friction between the authorities and the students in India is whether students should be allowed to take part in active politics. The friction was, perhaps, mainly due to the conflict between the rulers and the ruled, a conflict which was inevitable under a foreign Government. The position has been altered by the replacement of foreign rule by a Government of our own, broad-based on the people's will. Professor Oddone Fantini of Perugia University in Italy, writing of the university in the Fascist State, says: "It would be ridiculous to suggest that the university should be non-political. Actual facts prove that the universities are centres of political life throughout the world, and this is especially true of Italy. For instance, the students strongly influenced the struggle for national independence, and again in 1915 they were a decisive factor in the declaration of the War".³ The

3. See *The University in a Changing World*, (Eds. Walter M. Kotschnig & Elined Prys), pp. 174-175.

remarks of the Italian Professor might well have been made with reference to Indian universities and their students and India's final struggle for independence, which culminated in the achievement of full freedom from foreign domination.

There is no cogent reason for tabooing politics in our universities. It would be wrong to suppress the idealism which inspires the thought, speech and actions of the younger generation of college and university students, whether in the domain of academic study or in that of politics. With their generous impulses and freedom from prejudice, which are characteristic of youth, the students may succeed where their elders have failed. One remarkable instance of this is the harmony, understanding and friendliness that prevails amongst students of different communities in Indian universities, as contrasted with the strained relations between elder politicians and political parties, which have assumed ugly proportions in India's recent history. If university students are properly guided by their teachers and do not participate in activities subversive of academic discipline, the inculcation of which is one of the essentials of a university education, there is no danger of their academic interests being sacrificed to political activity. Students should be made to realize that long experience and patient study are essential for the successful tackling of political problems, and that social service provides the best training ground for political workers. Their patriotic zeal can be directed into fruitful channels of work and service by impressing upon them the urgent need of social and economic reconstruction in our country, which was not realized till now on account of the people being totally engrossed in the struggle for political independence. The literacy problem alone is of such magnitude as to absorb the energies of the entire student population in the universities for the next ten years.

III

A university does not fulfil its duty towards its students by merely providing qualified teachers to instruct them in the subjects of the examinations for which they are preparing, though this, no doubt, is one of its many duties. Students do not go to a university only to gather information from lectures, since they can as well obtain this from books. The teachers are expected to give them what they cannot get from books and examination guides. They are expected to do much more. They must teach their students to think for themselves and form their own independent judgements on problems placed before them, to discriminate between the true and the false, the good and the bad, the beautiful and the ugly, and finally to express their thoughts accurately and clearly. The function of the teacher does not end even here. He has to be not only a guide and philosopher but also a friend. He must assist the student to develop the social side of his character so as to become a good and useful member of society when he steps out of the university into the world. With this aim, the university has to provide the necessary facilities for sports and games, debating halls, libraries, dramatic, musical, literary and scientific societies. The Oxford and Cambridge Unions, both more than a century old, with debating halls, a library and a reading room, provide the students of those universities with splendid opportunities for training in the methods of parliamentary debate, developing their oratorical powers and dialectic skill, exchanging views on topics of current interest and making personal contacts with eminent politicians and leaders of thought. There is unfettered liberty of speech in these Unions, and momentous questions are discussed and decided with all the seriousness characteristic of a genuine parliamentary debate, and with even less reserve, since no responsibility attaches to the speeches made. Such frank and free discussions, carried on at a high academic

level, afford excellent training for those who intend to enter public life later on. Many of the great parliamentarians and public men of England and India first won their laurels as speakers in one or the other of these Unions.

The playing field is a necessary adjunct to universities and colleges, because it gives the students opportunities to play games like cricket, hockey and football which not only provide healthy exercise and recreation but help them to develop the qualities of leadership, tact, judgement and fair play, which will stand them in good stead in the more serious game of life. The University Officers' Training Corps, with its camp life, parades and drill, affords the same opportunities in a different setting, and other forms of sport like rowing and swimming have their own special attractions.

It is one of the duties of the teacher to see that every student avails himself of these amenities, which play an important part in the building up of character and a healthy physique, so essential for the welfare of the nation. By his own personal example and interest in these activities outside the class-room he can create in the student a zest for a healthy corporate life. Such a corrective is necessary for the serious student who is apt to neglect his physique in his anxiety to shine in his studies.

The periodical medical examination of students, both free and compulsory, is a feature of most of the larger American universities, which also provide free medical service. All Indian universities need to adopt the system of free medical examination, if not also of free medical service, and, if their funds are inadequate for the purpose, it is the duty of the State to aid them with special grants. This is all the more necessary if compulsory military training is to be introduced in the Indian universities as part of the scheme of post-war educational development.

In the provincial universities of England and in the Scottish universities there are students' unions, and

federations of such unions, which command considerable influence. The presidents of these organizations, who are all students, play an important part in student life. They maintain a close touch with the authorities of the universities. The National Union of Students in England and Wales, established after the First World War, is a powerful body, which is interested in questions affecting students in general, such as hostel accommodation and foreign travel. India, too, is not without its students' unions, but some of these are organized on party or communal lines, frequently leading to friction among them on account of their differing ideologies. So long as they continue to speak with different voices they cannot command much influence. Students should be made to realize the harm they are doing to their cause by importing communal considerations into their organizations. The only way of consolidating their position is to make the status of student the sole bond of union among their members. They should, as far as possible, keep politics out of their affairs, because the cold air of politics would blast the youthful idealism which flourishes best in the warm atmosphere of friendship and goodwill prevailing in their academic garden. If they are reorganized on the right lines, there is no reason why students' unions and federations should not be welcomed by the universities in India, which are now inclined to view them with some suspicion. The universities exist for the students and their interests are identical with those of the students, for what would the universities do without their students, or the students without the universities? There must grow up a common understanding that the universities will not interfere with the activities of the students in matters which they are competent to decide for themselves, and that the students' unions, on their part, will not try to interfere with the universities in matters relating to courses of study, examinations, prescription of text-books and other academic questions which are mainly the concern of the universities.

Students' unions could with advantage be federated with unions of university and college teachers, and they could support each other on questions of common interest. The views of such federations would be sure to receive careful consideration by the universities as they would be the outcome of youthful idealism tempered by mature experience, and would take account of the students' as well as the teachers' point of view.

CHAPTER XVIII

GENERAL EDUCATION AND SPECIALIZATION

The title of this chapter might well have been any of the following: 'Liberal and Specialized Education', 'Encyclopaedism and Specialization', 'The Humanities and Science', 'Culture and Science'. The idea underlying all these captions is the same, namely, the contrast between the ancient ideal of universal knowledge, commended by Cardinal Newman, and the modern ideal of research, or between the functions of the diffusion and the advancement of knowledge, which, as we have tried to show in an earlier chapter, are not antagonistic to each other.¹ The distinction between general and special education has been described in the following words in the Report of the Harvard Committee on General Education in a Free Society.² "It [general education] is used to indicate that part of a student's whole education which looks first of all to his life as a responsible human being and citizen; while the term special education, indicates that part which looks to the student's competence in some occupation."

We prefer the term 'specialization' to 'special education', as it is much wider, and includes not only special training for a profession, but also training in a special branch of study, whether related to science or not. For the purpose of the distinction it is not the subject-matter which is important, but the outlook of the student and the method of study. Thus, the study of philology implies specialization, even though the subject-matter relates to language and forms part of the curriculum of general education.

The progress of university education in Europe,

1. *Vide* Chapter XIV.

2. Harvard University Press, Mass., 1945, p. 51.

particularly in Great Britain, is marked by a steady movement from general to specialized education. The mediaeval universities of Europe stood for the ideal of 'general culture' in theology, philosophy and the humanities generally, and regarded the transmission and diffusion of culture as their basic function. The Universities of Oxford and Cambridge inherited this tradition and nurtured it. They regarded it as their main function to complete the education of young men from aristocratic and well-to-do families who sought a liberal education as a preliminary training for entering public life or one of the learned professions. The formation of character was the end and aim of the education they provided. If the British universities have to this day maintained a sound sense of values, and not allowed themselves to be lured by the false gods of utility and materialism, like the American universities, this is largely due to the influence of Oxford and Cambridge. It may sound strange, yet it is true, that in Germany, which before the last World War was one of the most scientifically advanced countries of the world, the educational organization was controlled by the cultural ideal of education, as opposed to *ad hoc* training. The German universities deemed it their primary function to develop knowledge, and the training of the professional and official classes was a subsidiary function with them. They believed in training their students in the fundamentals of a subject so that, later on, they could tackle their own problems without guidance. They would have scoffed at the idea of a specialized training intended to fit them for a vocation. This was, perhaps, the result of the mediaeval influence.

The Industrial Revolution and the Reform Movement gave a new orientation to British educational policy. Benthamism gained ground, and the importance of natural science and modern subjects like economics, history and foreign languages, which had no place in the curricula of the older universities, came to be recognized. The realization of the need for advancing

knowledge in all branches of intellectual activity dawned on people's minds. The London Mechanics' Institute (Birbeck's College) was founded in 1823, and the Working Men's College was established in London in 1854. The Great Exhibition of 1851 also gave a fillip to technical education. The Universities of Durham and London came into existence round about this period of scientific awakening.

The provincial universities gave prominence to science and technology in their curricula, and thus provided a wider range of subjects for their students than either Oxford or Cambridge. The older universities could not, however, afford to stand still and look on, while the newer ones were vying with one another in equipping their laboratories and devising new courses of study to keep abreast of the progress of scientific knowledge. Research was attracting the best intellects in the country. The mediaeval ideal of culture was receding into the background, while science was gripping the minds of men by unfolding new vistas of knowledge which beckoned to them with their alluring prospects.

The Indian universities were moving on parallel lines, and, although on account of their later start they have not yet caught up with the English universities in the race for scientific advance, some of their research workers have distinguished themselves in the world of science. There is no doubt that America has outstripped England in applied science, and that the laboratories of some of the American universities are by far the best equipped and most up-to-date in the whole world today. Technological training is becoming popular in American, British and Indian universities, and technological research is receiving increasing support from governments. The direction which university education has taken in the West and in India can be summed up in the phrase: From culture to science and from science to technology.

Specialization, or the knowledge of more and more

about less and less, as it has been humorously defined, has become inevitable as new branches of knowledge have come to be recognized. The sum of human knowledge has increased at such terrific speed that it is impossible for any single individual to cover the entire field. Further exploration is only possible if persons with special training and aptitude cultivate small portions of it. Specialization is based on the principle of division of labour as applied to the sphere of knowledge, and appears to be the only means of perfecting knowledge. One can say without exaggeration that scientific progress in our time is impossible without specialization. The age of science has not only produced the specialist, but has created a new outlook upon life. While compartmentalization of knowledge is needed for its progress, the seeker after knowledge must never forget its context. Specialization and an analytical mind go together. Every bit of knowledge is connected with every other bit, and for a correct appreciation of any branch of knowledge some familiarity with its related branches is essential. What is more is that one cannot become a good technologist without possessing a good knowledge of the fundamentals of science.

A university education is unsatisfactory if it is restricted to just one narrow branch of a subject, no matter how thorough it may be, and this is what happens when general education is neglected, as at Harvard and some other American universities. The problem of the universities today is to determine the right balance between the basic general knowledge a student must possess and the special knowledge of the branch in which he wants to become an expert. The scholar and the scientist who come out of their portals must also be good citizens and good men.

There is no antithesis between general and specialized education, and it is not difficult to prescribe a balanced curriculum, combining subjects of a purely cultural character with subjects in which a student

desires to specialize. "Education must look to the whole man: it aims at the good man, the good citizen and the useful man. By a good man is meant one who possesses an inner integration, poise and firmness, which in the long run come from an adequate philosophy of life".³ If the cultural part is wanting, the product will at best be a brilliant failure of the type Ortega Gasset contemplates when he talks of professionalism and specialism having "smashed the European man in pieces".⁴

Bifurcation of courses into those leading to an arts degree and those leading to a science degree, or a degree in a professional or a vocational subject like engineering, law, medicine or commerce, becomes necessary at a certain stage in the careers of university students. It is not easy to decide the stage at which bifurcation should take place. If it takes place too early two dangers are involved. One is that the general education received by the student may be totally inadequate to serve as the cultural foundation for a successful scientific or professional career. The other is that he may not have sufficient maturity or experience to decide whether his natural aptitude and inclination justify his choice. In some universities students are not called upon to make their choice until they have completed two years of the college course. In others the choice has to be made at the time of entering the university, when the student is immature, and has yet to adjust himself to the new method of instruction by lectures, which is different from the method of teaching to which he was accustomed in school. A good number of students repent later of the choice made by them, and are obliged to waste a year or more. It is highly desirable that students should not be compelled to make a choice until they have completed at least one year of college life. In any event, courses could be so framed

3. The Report of the Harvard Committee on General Education in a Free Society, p. 74.

4. *Mission of the University*, p. 48.

as to make it possible for a student to switch over from science to arts and vice versa.

Some Indian universities permit the master's degree in different faculties to be taken by research as well as by papers. They also award the Ph.D. degree for research work done by students who have a master's or a bachelor's degree. In practice many students proceed straight from the bachelor's degree to the doctorate, by-passing the master's degree. Unless he is brilliant and has done a considerable amount of reading, a student who has selected a restricted portion of any subject for his thesis finds that his knowledge of the fundamentals of that subject does not go very far, and the thesis turns out to be a superficial piece of work with no solid theoretical basis. Even assuming that it is good enough to deserve a doctorate, as university standards go, he is apt to make a sorry show of his theoretical knowledge if he is called upon to teach. To avoid such a contingency, and to ensure that the doctor's degree is a guarantee of sound knowledge of both the theoretical and the practical sides of a subject, universities should be stricter in awarding the doctorate, and not allow students to proceed to it unless they have previously taken the master's degree by papers. Further, a master's degree should never be awarded for a thesis, save in those universities which have no Ph.D. degree. There is no point in awarding for guided research work two different degrees, one slightly higher than the other, in the same faculty. The consequence of such a course is positively harmful, for the master's degree tends to become an inferior degree and the doctorate is not sufficiently high to deserve the distinction associated with it. A great quantity of so-called research in modern universities does not deserve that description on account of its poor quality, ascribable mainly to weak foundations. The quality of research work and the standard of research degrees leave much to be desired.

CHAPTER XIX

ADMISSION, COURSES OF STUDY AND INSTRUCTION

I

Admission to universities is ordinarily subject to certain conditions being satisfied by those who wish to enter them. The main object of these conditions is to guarantee that the entrant has attained a level of intelligence and acquired an amount of knowledge of cultural subjects like languages, history, geography and mathematics, which would enable him to derive benefit from the course of studies on which he is about to enter. If there were no such conditions, universities would be overwhelmed by a mass of human material of which a large portion could never be moulded in accordance with their aims and ideals. This intractable portion would also interfere with the shaping of the rest which runs easily into their moulds. Realizing the necessity of a preliminary sifting, universities have devised their own entrance tests.

The test which the ancient University of Nalanda held for the admission of strangers would be considered unduly severe in our own time. Each candidate seeking entrance had to enter into discussions with the *dwarapalas* or gatekeepers of the University, who were all learned men, and to satisfy them about their proficiency. Today a viva voce test is prescribed for candidates for a doctorate, and that too only in some universities. The percentage of students who passed the entrance test of Nalanda varied between twenty and thirty. There were, however, no newspapers in those days to announce in alarming headlines, year after year, that there had been yet another slaughter of the innocents! The universities of Soviet Russia appear to be the only universities of modern times which prescribe

no entrance examination or qualification. The British universities insist on the passing of an entrance test or matriculation examination. Where a university consists of colleges, the latter impose a further test. In Oxford and Cambridge admissions are made after examination and interview. In India many universities hold their own matriculation examination. In some the school-leaving examination held by the provincial government or its educational department is accepted as an entrance test, subject to certain conditions. The matriculation examination of all statutory universities is, as a rule, accepted by them as satisfying their entrance requirements, and examinations held by certain other examining bodies are similarly recognized.

Universities and provincial governments have often discussed the question whether the matriculation examination should not be abolished, and a single examination held to serve the dual purpose of a school-leaving certificate test and a university entrance test. The Central Advisory Board and the Inter-University Board are in favour of only one examination being held with this twofold purpose. If this view is accepted, it means the abdication by the universities of their inherent right to decide who shall, and who shall not, enter their portals. The universities are, without doubt, the best judges of the qualifications necessary for those who enter them, since it is they who plan the courses of study, frame the detailed syllabuses and know best what mental calibre is necessary to tackle them. Whatever reasons may be urged for doing away with the matriculation examination, it would not be fair to the universities to dump upon them students about whose capacity the only thing known is that they have satisfied an outside examining body which has judged them, not from the point of view of their fitness for university study but by different standards altogether. In trying to rescue secondary education from the supposed strangle-hold of the matriculation examination, we should not fetter the freedom of the

universities to select their entrants according to their own standards.

The plausible argument often advanced is that by entrusting the management of the secondary school-leaving certificate examination to a joint board, with representatives of the universities and of government in equal proportions, the maintenance of a high academic standard can be ensured for the examination. Such a system has been tried and found unsatisfactory at least in one Indian province. It is inevitable that the representatives of the two different interests will pull in opposite directions, with the consequence that any scheme adopted by the board will be in the nature of a compromise, and compromises on courses of study and standards of examination, as is known only too well to educationists, are notoriously unsatisfying.

Apart from the reasons urged in the two preceding paragraphs against a common examination and a joint board to conduct it, there is a very sound reason why the school-leaving certificate examination and the matriculation examination should be distinct and separate from each other. The content of the curriculum is more important than the intellectual training it affords for the pupils who pass directly from the schools into occupations of various kinds, for they have little chance of acquiring later on a knowledge of subjects which provides them with the mental equipment necessary for satisfactorily discharging their duties as enlightened citizens. On the other hand, those whose aim it is to enter a university for prosecuting higher studies will have abundant opportunities of extending their knowledge and widening their interests while they are at the university. What the latter require is to train and develop the intellect rather than to make the mind a storehouse of facts relating to history, geography, government administration, science or literature. The main object of the secondary school-leaving test is to find out whether the examinee has assimilated the minimum knowledge that will help him to tackle the

problems that will face him in his vocation or his life which he is on the eve of entering. The matriculation test is intended to discover whether the examinee has shown sufficient intellectual ability to benefit by further academic study. To attempt to make one and the same examination serve this twofold purpose is like trying to convert a single passage into a blind alley and a thoroughfare at the same time.

If Government are anxious to free secondary education from the influence of universities there are other ways of doing so than by depriving the universities of their right to hold their own entrance test. They can provide vocational schools (agricultural, technical, or commercial), as in the Province of Bombay, to attract the type of student who has no aptitude for academic study, and also conduct a general school-leaving certificate examination in their own way for those who wish to enter government service or business firms in the capacity of clerks. If the standards of these examinations are sufficiently high, the universities are not likely to refuse them recognition for the purpose of equivalence, either wholly or in part. The matriculation examination can continue as hitherto. If anything, it will hold up a standard which the conductors of the school-leaving certificate examination will naturally try to emulate if they want its equivalence to be recognized. It is neither sentiment nor the apprehension of financial loss, as some imagine, that has weighed with the universities, in the past, in resisting the encroachment by Government on their powers, since Government could easily compensate them for such loss. It is the principle that no one shall enter *my* home without *my* permission. The most reasonable solution is to allow the secondary school-leaving certificate examination to go its own way, and to leave the universities full freedom to accept or not to accept it as equivalent to their matriculation examination. If the matriculation examination has an overshadowing influence on the secondary schools today, it is because the majority of

them train up candidates for that examination and no other. In order to wean away schools from the universities, if that is the wish of Government, they have only to popularize the school-leaving examination by making special grants to schools which prepare students for it, providing scholarships for poor students attending such schools and giving preference to the holders of school-leaving certificates over matriculates in making appointments to clerical posts in government service.

II

The humanities, or purely cultural subjects, natural science and social studies between them cover the entire field of learning. The earlier universities began with the teaching of the humanities. The teaching of natural science and social studies came very much later. The humanities teach man about himself, his intellect, his emotions, his aspirations and ideals. Natural science acquaints him with his physical environment, and social studies with his social environment. Technology is an extension of natural science with a bearing on, and close connexion with, social studies, inasmuch as its province is the application of science to the needs of man and society. Modern universities, as a rule, make an attempt to cover all these various branches of knowledge. The tendency noticeable in our times is to place natural science first, social studies next and the humanities last in any scheme of university education, and the popularity of these three branches is in a descending order. The professional subjects fall either under the head of technology or under that of social studies. Thus, engineering, agriculture, veterinary science and medicine are all applied sciences, while law, teaching and commerce are social studies.

The professional courses have a certain degree of uniformity so far as their content is concerned, since the requirements of the professions are more or less the same everywhere. The difference, where it exists, lies

in the degree of specialization which, in its turn, depends upon the availability of equipment, the qualifications of the teachers and other conditions pertaining to a locality. The standards of courses in non-professional subjects vary considerably, and there is sometimes a marked difference between the products of different systems of education, as, for example, those of America, on the one hand, and those of Great Britain and India, on the other. There is a greater co-ordination of subjects under the British system, which has furnished the model for the Indian universities.

The *Baccalauréat* (B. ès A. or B. ès S.) of France, which is sometimes mistaken to be equivalent to the degree of Bachelor of Arts or Science of an English university, is of no higher standard than the advanced course in an English secondary school. Like the Intermediate examination of Indian universities and provincial boards, it must be passed before a student can enter upon a professional course of two, three or four years' duration according to the faculty selected by him.

The first degree in an American university is 'Bachelor of Arts' or 'Bachelor of Science', taken at the end of four years of work at college. Sixteen courses are required for either degree, of which six have to be specialized in. Specialization begins in the second year, and the candidate has to pass an examination in these six courses before he can get his degree. The Honours student has to specialize in more than six courses and to submit an essay or thesis based on special reading or research.

In the Scottish universities there is no Bachelor's degree, the very first degree being called the Master's degree, and the duration of the course leading to it is three years only. The Honours course comes after the Master's degree course.

In Oxford and Cambridge there are two types of courses: Pass and Honours. The Pass course includes a wide range of subjects, and the student's work is less intensive. The Honours course is more intensive, and

the examination is a searching test of the candidate's proficiency. The Pass course is regarded as too shallow. It requires a residence of nine terms (each of about eight weeks) and the passing of three examinations. The more ambitious students work for the Honours degree. There are two examinations leading to this degree in Oxford, viz., 'Moderations' and 'Greats'. The Honours degree in Cambridge is known as a 'Tripos'. The Tripos has two parts, the first involving a general study, and the second the specialized study of a particular subject or branch of a subject. The first Tripos is taken at the end of the second year and the second Tripos at the end of the third year, the only exception being the Mechanical Sciences Tripos (in Engineering), which must be passed all at once. Whatever the subject, the degree is called 'Bachelor of Arts'. In London the degree in science, engineering and economics is called 'Bachelor of Science', with the abbreviations (Eng.) and (Econ.) tacked on in the last two cases respectively. There are both Pass and Honours courses in London University. In the provincial universities, too, there is a distinction between Pass and Honours, but the scheme of studies for a Pass course is better planned, and is a better preparation for the career of a school teacher than a highly specialized Honours course in a single subject.

The University of Bombay has recently revised its degree courses on similar lines. According to the new scheme a student who takes the course for the B.A. (General) degree, the equivalent of the Pass degree of the English universities, has to offer two papers in compulsory English and two in each of four subjects grouped under the heads of languages, philosophy, history, economics, mathematics and science. There is, however, one restriction on his choice, namely, that he must choose his subjects from at least three groups. An Honours student has to offer the same number of papers, two of which are in compulsory English, and the other eight are to be so distributed that he takes at least

three subjects from a single group or three heads under any one language. The assumption underlying the scheme is that there are two distinct types of mind, one of which prefers range to depth, and for which the general course is suitable. The other type prefers depth to range, and is at home only when it has to specialize in one or two branches of study. This two-fold division of the degree course is so devised as to avoid the danger of shallowness even in the General course and to attract brains of first-rate quality to it. It is unlike the old Pass course which was both shallow and narrow.

Some Indian universities, like Madras, have an Honours course of three years' duration, while their Pass course extends to two years only. A student who qualifies for Honours in these universities obtains the Master's degree, without any further examination, after the lapse of a certain period and on payment of a fee. The University of Delhi has recently revised its degree course by reducing its length from four to three years and abolishing the Intermediate examination. This new experiment is intended to give effect to a recommendation of the Central Advisory Board of Education.¹ It is yet to be seen how the experiment will work in practice, because the recommendation which it tries to follow lays it down as a specific condition that the one year of the Intermediate course which is thus deducted from the old degree course should be added to the secondary schools, *without lowering* standards. The success of the experiment will depend upon the schools being able to raise their standard sufficiently high to bring their highest class on a par with the first year courses of the other universities which continue to retain the old four years' degree course. This involves the appointment of teachers with much higher qualifications than those ordinarily possessed by teachers of the

1. *Vide*, Report of the Central Advisory Board of Education on Post-War Educational Development in India, 1944, p. 32.

matriculation class at the present day.

The older universities do not appear to have welcomed the Delhi experiment with enthusiasm. In fact, some of them have been hesitating to grant recognition to the new entrance examination of Delhi University as equivalent to their First Year College examinations, or to the completion of the First Year of the Delhi course as equivalent to the completion of their Intermediate courses. We do not think that anything has been gained by the truncation of the degree course, save that one university examination, viz., the Intermediate, has been abolished. The Intermediate examination has served a definite purpose, especially on the science side, as it has been a convenient and logical stage for the branching off in a student's career into one of the professional courses, such as engineering, medicine, law and technology. At the close of his school career the student is not adequately prepared to embark on a professional course, and at the end of the first year of the shortened three years' degree course, there being no university examination to test his knowledge in the subjects which provide the foundation for the professional course, it is difficult to determine whether he possesses that knowledge, unless the First Year's course corresponds to the second year of the Intermediate course. It is presumed that the main purpose of shortening the degree course to three years is to ensure its organic unity. If the First Year's course is to be identical with the senior year of the Intermediate course, the organic unity would be destroyed. The chief objection, however, is that the standard of the degree at the end of a three years' course is bound to be lower than that of a degree taken at the end of four years of collegiate study. The University of Mysore at one time tried the three years' course only to abandon it ultimately. Educational experiments are unlike physical or chemical experiments, since their results depend on the human element whose reactions cannot be predicted with any degree of accuracy. Unless,

therefore, one waits sufficiently long to see how the graduates under the Delhi scheme shape and how they compare with those of the older universities, when pitted against them in the larger arena of life, one cannot venture to be dogmatic in one's opinion.

The rules governing the award of the master's degree in different universities reveal considerable divergence. As already pointed out, in Scotland the master's degree is a misleading name for the bachelor's degree. In many English universities it is awarded without further examination to those who have taken the first Honours degree, on payment of a prescribed fee, subject to the lapse of a fixed period of time. In others, there is a separate examination for obtaining the degree. In Harvard and Yale two years of residence and the writing of a thesis are required for the master's degree. In other American universities it involves one year's residence and the writing of an essay after graduation. In Indian universities, where it is taken either by examination by papers or by thesis, it involves two years' work after graduation. Where the B.A. Honours course extends over three years the master's degree is awarded, without any examination, on the lapse of a year after graduation. The main value of the master's degree is that it is a necessary qualification for those who want to become teachers in colleges. The master's examination offers a chance to some students for retrieving their failure to secure a good result at the bachelor's examination.

The Ph.D. degree also varies in the several universities in respect of its requirements as well as its standards. It has a glamour attached to it in this country. It is a purely research degree, awarded for original research done under the supervision and guidance of a recognized university teacher and, in practice, is usually taken two years after the master's degree by papers or three years after the bachelor's degree. In some universities the presentation of a thesis is all that is requir-

ed of the examinee. In others, the examinee has to submit himself to a viva voce test at which he is called upon to defend his thesis. Among 'guided' degrees the Ph.D. stands highest. In America it is often awarded for work which does not deserve the name of research. In England the value attached to it depends on whether its holder is or is not the possessor of a good Honours degree. Formerly, a large number of Indian students used to incur the expense of a voyage to Europe or America to get a doctorate. This has become unnecessary now, as many of the Indian universities have instituted doctorates. In science subjects, excluding mathematics, a candidate has to pass a translation test in French or German. Indian universities have been following the commendable practice of sending the theses submitted for a doctorate to eminent referees in foreign countries in order that their standard may be as high as that of well-known universities abroad.

III

The examinations are too much with us in India, since for the majority of our students they are the be-all and end-all of their academic careers. This is not difficult to understand, as the result of an examination often makes or mars the entire career of a student. Examinations are a necessary device to test the proficiency of students in the subjects which they have been taught, and they are, perhaps, the best means of assessing individual progress and merit objectively, provided, of course, that they are conducted with fairness and impartiality. Being a necessary evil, they should not be permitted to dominate the educational system in India, as they do in France.

Examinations are ordinarily conducted by papers, supplemented by orals when they relate to a living language, by practical tests for science and technological subjects and oral, practical and clinical tests for medical subjects. Candidates for research degrees are examined

on the theses submitted by them, embodying the result of their work. Most universities in India invite external paper-setters and examiners to assist them in the conduct of their examinations. There are two advantages in associating outsiders with examinations in this way. One is that it leaves no room for the suspicion of favouritism and the other is that fresh and independent minds are brought to bear on the subject of the examination, which prevents the questions from running in the same groove year after year. If widely adopted, such a system also enables teachers to become acquainted with standards of teaching and examination in universities other than their own. The only defect in it is that there may be lack of co-ordination between the teaching and the examinations, but this can be cured by moderation by a board of moderators consisting of teachers of the university whose candidates are being examined.

Where the examination is by thesis, external referees are appointed to examine the thesis, the teacher who has guided the candidate acting sometimes as an internal referee. This practice is open to the objection that the internal referee may directly or indirectly influence the external referee in favour of the student. On the other hand, in the absence of an internal referee there is some risk of the candidate not obtaining justice at the hands of the external referee, especially if the latter is not familiar with the standard expected of candidates for the degree in question. A choice has, therefore, to be made between two evils, and the second is definitely the lesser of the two, for standards for research degrees do not, and should not, vary appreciably if the referees know their business.

One other question arising in connexion with examinations is whether the class-work of a candidate should be a factor in the determination of the final result, as it is in some universities for engineering and teaching examinations, where the surveying and drawing work done during the year and the practical lessons given are respectively taken into account by being al-

lotted a certain proportion of the marks. There should be no objection to this practice, if the external examiner can judge the quality of the year's work without any guidance from the candidate's teacher, but to allow the teacher to have a say in the marking is to put in his hands a weapon which he may use for benefiting or harming any student, should he be wanting in a sense of fairness and justice. The practice is liable to abuse in affiliating universities which have a number of colleges, as it is possible that each college may try to obtain an advantage over the others by assigning marks very liberally for class-work to ensure that its students make a better show than those of the other colleges.

Cognate to the question of courses of study is that of attendance at lectures. In some universities a minimum attendance at lectures is prescribed by regulations; in others attendance is optional. In their Report for the year 1936 the University Grants Committee of Great Britain expressed the view that the idea of compulsion was "appropriate to a mental age considerably lower than that of university students".² Although this is perfectly true in theory, as a measure of discipline, and in order that a lecturer may not be reduced to the sorry plight of having to return from a class-room of empty benches until he has established his reputation as an able teacher, it is desirable, in practice, to prescribe a minimum compulsory attendance, at least for undergraduates. Compulsory attendance at the post-graduate stage is, perhaps, out of place, though even here some Indian universities insist on a minimum attendance. The post-graduate student would derive greater benefit from seminars and discussion groups than from formal lectures which do not provide the stimulus necessary for the independent thinking and initiative expected of them.

Even at the undergraduate stage the value of lectures depends on their quality. The mere dictation of

2. *Vide* p. 22 of the Report.

notes, miscalled lectures, howsoever useful as an aid for the passing of examinations, has no cultural value. It is like food which has no vitamin content. A lecture does not fulfil its function if it does not give the student an insight into the mind of the teacher and his individual method of approach to the problem with which he is dealing. Lectures should supplement books, and not be poor substitutes for them. A former Vice-Chancellor of Birmingham University is reported to have remarked on one occasion that, if he were a dictator, he would reduce the time taken by lectures to a third of that taken at present and make attendance in the library compulsory for three hours every day.

A well-stocked and up-to-date library is a necessary adjunct to every modern university. Books and journals are as essential as laboratory equipment. They are the tools of the trade of both the teacher and the student. Thomas Carlyle went to the length of saying that a true university was a collection of books. The wonderful organization of the libraries of American universities has evoked the admiration of scholars all over the world. In the great library of Harvard each professor has his study, and each research student his cubicle, where he can keep the books he constantly requires, and the book-stacks are easily accessible to all readers. Flexner remarks that the library situation at Oxford is unsatisfactory, as there is no general catalogue in existence, while there are unco-ordinated college libraries, the library of the Taylor Institution, the Bodleian, Barnett House, and Rhodes House.³ Besides, undergraduates are not permitted to borrow books from the libraries of Oxford and Cambridge universities. In Indian universities the libraries are very much smaller, although attempts are being constantly made to increase their utility by the addition of the latest books and journals. They do not, as a rule, lend books to their undergraduate or post-graduate students, who are all expected to

3. See *Universities, American, English, German*, pp. 292, 293.

read in the library building. The books, too, are not easily accessible in view of the unfortunate experience that an open access system leads to heavy losses of books. The university departments and affiliated colleges have their separate libraries for the exclusive use of their own students. In some centres readers of the university library are given facilities to read in the library of the Royal Asiatic Society or other public libraries under a scheme of collaboration devised to co-ordinate work and avoid duplication in making purchases of expensive books. Some Indian universities have introduced library diploma courses. University librarians, at the present day, are all trained men and affiliated colleges have begun to realize the advantage of having trained librarians on their staff.

The University Presses of Oxford and Cambridge are the pride of those Universities. Both are ancient, and have published dictionaries or histories which have acquired a world-wide reputation. Harvard University, too, has its own Press. Among the Indian universities Calcutta has a press of its own. A university press can be a very useful agency for the publication not only of general literature but also of the research work of its own teachers and students for which the university gives publication grants. It can also serve as a link between the university and the general public by publishing popular literature on current topics of historical, political or economic interest and university news in the shape of a bulletin.

CHAPTER XX

UNIVERSITIES AND THE SECOND WORLD WAR

This study of universities and their problems would be incomplete, if no mention was made about the effects upon them of the Second World War from which the universities of Europe and India have recently emerged. An armed conflict of that magnitude, involving almost all the nations and peoples of the earth, extending over a period of nearly six years, and carried on with the determination and vigour of combatants engaged in a life and death struggle, with the aid of the deadliest of weapons that science was capable of inventing, could not be expected to leave civilization whole. If the wounds and scars that it has left on the face of civilization are not deeper and more disfiguring than they appear to us today, it is due solely to the invulnerability of the human spirit and the vitality inherent in a civilization with a sense of values which has carried the world safe through many a similar crisis in the past.

During the progress of the War, the normal work of the European universities in the war zone was put out of gear in a variety of ways. Universities like that of London, which were situated in cities subjected to constant bombardment, had to shift temporarily to comparatively safer areas, the staff and students of many had to leave them in order to enlist in the fighting services and those young men and women who would ordinarily have joined the universities after the completion of their high school education were prevented from doing so by the call of duty elsewhere. It is surprising that, in spite of all these difficulties and handicaps, the universities kept the lamp of knowledge burning through the dark night which enveloped the world. Countries like India were much more fortunate, for even though many of the young men at the Indian univer-

sities volunteered their services in the fight for freedom in which the democracies of the world were engaged, the normal work in those institutions proceeded without serious dislocation, except in solitary instances like that of Andhra University which was obliged to shift its headquarters from Waltair to Guntur for some time.

While the work of the teacher of science at the universities was interrupted by his being called away to assist in solving technical war problems of an urgent character, the wider experience he thus acquired outside the university or college laboratory gave him an added impetus and vigour to pursue his half-finished research at the university on his return to it after the War. It also instilled into his mind new ideas derived from his contacts with first-rate minds working in allied fields of research. At least, this is what has happened in the British universities.

Apart from the disturbance of mind which prevailed in seats of learning, as elsewhere, throughout the world while the War lasted, the universities had to put up with many difficulties and inconveniences in their normal work. Their tools of trade, comprising books, laboratory equipment and materials such as glassware and chemicals, which are so essential for carrying on the teaching of arts and science subjects and research, which is the life-breath of modern universities, were difficult to obtain in the required quantity. The new colleges which were fast springing up to meet the growing needs of university education had to begin their work in unsatisfactory buildings, and institutions, old and new alike, had to adopt double shifts for lack of building and laboratory space. In fact, conditions of research, study and teaching were anything but conducive to the production of the best results.

The universities could not afford to stand aloof from war activity. They had to do their bit by encouraging their young undergraduates to enrol themselves in the army, the navy and the air force. They also gave a number of concessions to their students who joined

one of the combatant services, such as exemption from the prescribed attendance and permission to take the examinations by compartments, appearing in those subjects only in which they had previously failed. Some of the universities went even to the length of conferring degrees without insisting on the passing of examinations. Even when the examinations of a university were not recognized as equivalent to the corresponding examinations of other universities, if the university was situated in a war zone, or an area which had to be evacuated on account of its nearness to a scene of action, the students were given admission by the latter to corresponding courses of study. The rules were interpreted in the most liberal manner, and everything possible was done to see that no technicalities or restrictions stood between a young man and his desire to pursue his academic studies the moment he was free from his obligation to serve in any of the armed forces. The educational world was thus knit closer together. The exchange of professors and students between allied countries, particularly between India and China, was encouraged. The determination to keep the banner of culture flying in the seats of learning was in evidence everywhere, particularly in war-torn China where, according to Professor P. C. Chang, the Chinese government and people were "determined to maintain the universities at great cost" to show "their recognition of the special function which the universities (would) have, both during the period of the war of resistance and in the period of national constructive efforts following the war of liberation".¹

The universities of America and Canada and those of Great Britain are fast becoming overcrowded with men and women who have come back after service in the war to resume or pursue their studies. These students are known as 'veterans' in American phraseology. This rush of veterans is in a large measure due to the

1. Edward Bradby. (Ed.): *The University Outside Europe* (O.U.P.), Prof. Chang's contribution on 'Universities and National Reconstruction in China', p. 246.

fact that, in consideration of the war service rendered by them, the governments concerned have agreed to pay their tuition fees and other expenses at the universities for definite periods. The set-back received by university education during the war is thus being compensated for to some extent. There is, in consequence, one remarkable feature in the student life at these universities today. It has acquired a greater seriousness of purpose than was observable in the pre-war period, on account of the large element it contains of grown-up persons who have returned from the scene of war only to find themselves saddled with the heavy responsibility of settling down to a profession or vocation in a world bristling with complicated economic, social and political problems which are the aftermath of the War. It is yet too early to judge whether this will help the universities to make up their lost speed and rehabilitate the cultural life of the countries to which they belong.²

Along with its harmful effects, the War was also responsible for producing some beneficial results in the sphere of university education, particularly in India. The need of training up an efficient army, navy and air force was brought home to the people of this country with an urgency which had never before been felt, as India had never before in recent history been in such imminent danger of attack and invasion by an outside enemy as in the last War. The Government and the universities co-operated with one another whole-heartedly in making the students air-minded, and Air Training Corps were set up at most of the Indian universities. The students of Indian universities were thus encouraged to develop physical courage and the spirit of adventure, both of which qualities were supposed till then to be lacking among them. This was a welcome opportunity on the eve of the great changes which were awaiting the country, and which were to bring her the indepen-

2. See the article on 'The Canadian Universities' by R. C. Wallace, *Universities Quarterly*, November 1947, Vol. 2, No. 1, pp. 48-49.

dence for which she had been struggling through the three preceding decades.

The Second World War, much more than the First, brought the Government and the universities of India together in a common effort to help in its vigorous prosecution to a successful end by means of subsidized schemes of whole-time research on problems connected with war supplies. The idea of establishing national scientific laboratories in this country can be regarded as an offshoot of this co-operative effort. Both the universities and the national laboratories would gain immensely by working in the closest co-operation. If the closest contact is not kept up between them, there is danger of the laboratories becoming mere official departments for carrying on routine work for the Government, divorced from research activity of a high order. The universities, on the other hand, would be segregated from live scientific problems of national importance. Government must look upon the universities as non-official institutions engaged in the highest type of research with the sole aim of advancing knowledge, on which the State can always fall back when it is in need of the assistance of the best trained minds in solving problems of far-reaching importance to national progress, not only in emergencies but in normal times and under normal conditions. The higher staff of the national laboratories will necessarily be recruited from the universities. It should be possible to provide for an interchange of research workers between them by mutual arrangement.

Even while the War was going on, the Governments of countries participating in it had begun to think out schemes of post-war development in education, as in other matters, as they did not want to be taken unawares by the War coming to a sudden end. In India, the Central Advisory Board of Education set about seriously to consider the question of providing a national system of education for the country. They were encouraged to do so by the consideration that if the

paramount necessity of fighting the War to make the world safe for democracy and freedom compelled the expenditure of huge sums of money, which the countries engaged in war could ill afford, there was no reason why the same countries should not make an effort to meet the equally paramount necessity of an efficient system of national education in a post-war world. The result was the report of the Board on Post-War Educational Development in India (1944). Events have moved with unforeseen rapidity and India is already free to shape her own destiny, without the galling restraints of a foreign rule. This is the time to speed up the reforms which have become overdue in India's educational structure, including that part of it which is the concern of the universities.

While the other countries of the world are settling down to the solution of their post-war problems of reconstruction, India has been faced with a doubly difficult task. In addition to the problems common to her and the rest of the world, she has her own problem of problems which has been created by the splitting up of her erstwhile single entity into two different Dominions, with all the terrible consequences which have followed in the wake of partition. This problem has become so alarmingly acute, distressing and all-absorbing that the schemes of post-war development which should have been taken in hand on the attainment of full freedom have for the time being receded into the background. The conditions resulting from the disturbances in the country, which have been responsible for the largest migration of populations in modern times from one part of the country to another at a time of economic dislocation, and scarcity of food and clothing, have had an immediate effect on university education. The refugee problem of the War has returned in a more magnified form, for these refugees far exceed the number of those who fled from the scene of the European and Japanese war and sought to gain admission to the Indian universities. The 'home' universities are already overcrowded,

and would not be able to absorb all the refugee students without establishing more collegiate institutions and even new universities in provinces which have none at present. The universities will need to be liberal in granting concessions to such students, for they deserve all the sympathy and help that it is possible to extend to them in their miserable plight.

Many universities have already come to the assistance of refugee students by waiving the formality of strict proof of attendance or passing of examinations, giving credit for attendance kept in the universities from which they have migrated, condoning deficiencies in the attendance prescribed by the rules and in several other ways. The Central and Provincial Governments, too, have helped to mitigate the hard lot of such students by introducing loan schemes to enable them to maintain themselves and pay their tuition and examination fees. The object of these measures is to prevent waste of time and enforced idleness on the part of a vast section of the student population of the country. The existing universities can not only render valuable service to the cause of higher education, but also contribute to a partial solution of the problem of resettlement and employment of those refugees who have been in the teaching profession by assisting them to start new colleges and high schools for the large number of refugee students who are unable to find accommodation in the existing institutions. Such a step would prevent overcrowding and also a possible conflict between the ways of life and thought of the permanent residents and the immigrants, which are sometimes dissimilar on account of the difference in the traditions and environments in which they have been brought up and educated.

CHAPTER XXI

THE FUTURE OF INDIAN UNIVERSITIES

I

We are accustomed to hear a great deal of loose talk and irresponsible criticism about Indian universities, as if everything was wrong with them, and the only hope lay in digging them up from their foundations and starting to rebuild with fresh materials. Much of this criticism proceeds from ignorant or ill-informed sources and does not deserve notice. What is surprising is that it is often the very products of these universities who are loudest in condemning them. The best answer to these unsympathetic critics is that the fact that they are able to see the faults of the system of education to which they owe their own training and critical acumen is itself the highest tribute to it. This is not to say that our universities are paragons of their kind, with not a single defect, for what human institution is there which is above all criticism? Our plea is that there is no need to condemn an institution outright in order to bring about necessary reforms in its constitution or functions. The danger of adopting such a policy is that one may destroy an existing structure, which has served a useful purpose, without being able to construct another better or even equally good in its place. A careful study of the growth of the Indian universities, in the light of the progress of civilization, will make it clear that what is required for the reform of these universities—for no one would deny the necessity for reform—is mainly a shifting of emphasis from certain aspects to certain others which have not received sufficient attention till now, or which have, perhaps, been entirely ignored.

Our universities in India are essentially the products of the British policy of education, which was

chiefly directed to the creation of a phalanx of educated men to help in the running of the huge and complicated machinery of a foreign government. It is to this narrow and interested policy of the rulers that many of the existing defects in our university system are to be traced. The excessive value attached to examinations and degrees, the stress laid on the study of British history and institutions, to the virtual neglect of the history and civilization of our own country, and the special importance given to the English language as compared with the modern Indian languages are the most outstanding of these defects. It would, however, be only fair to acknowledge that, although self-interest was the guiding motive of the educational policy of the British, there were among them statesmen, with foresight and breadth of vision, who realized as early as the middle of the nineteenth century that the time had arrived in India for encouraging "a liberal course of education" by establishing universities. The cultural value of Sanskrit, Arabic and Persian and of the development of the modern Indian languages was fully recognized in Wood's historic Despatch (1854).

The first three Indian universities to be founded were admittedly based on the model of London University, whose form, government and functions were considered to be "the best adapted to the wants of India." The younger universities naturally followed in the footsteps of the Universities of Calcutta, Bombay and Madras which began as purely examining bodies, in the first instance, and became affiliating and teaching institutions later on. No one today would think of taking London University as a model, and yet many of its features continue to influence university education in India even at the present moment, e.g. the system of medical education.

We, in India, have been so long dominated by English ideals and examples in the sphere of education that we have not bothered to study the achievements of more advanced countries like America. While we have scru-

pulously copied the faults of England's educational system, we have not been as careful in taking note of the improvements effected in it from time to time. It is only in very recent years that we have begun to look further west for ideas and inspiration in scientific and technological study and research, and that our students have begun to go to the universities of the United States of America rather than to those of Great Britain for the study of the most modern developments in branches of knowledge like technology, commerce, business administration and medicine. The struggle for India's independence has been responsible for the recognition of the comparative backwardness of the educational progress of England in modern branches of learning and science and of the rapid advance made by the universities and research workers of the New World.

We have no longer the excuse of the domination of a foreign rule for not bestirring ourselves to reconstruct, not only the political life of our country, but also the other aspects of our national life, including education, particularly, university education. Educational reconstruction is in the air. The fresh and invigorating breeze of freedom is filling our lungs and inviting us to greater effort with renewed hope and strength. This is the time, if ever, to jettison antiquated ideas of education that keep clinging to us by the sheer force of habit or imitation, and to move forward with courage and vision.

II

The weight of the structure of university education in India, which lies heavily on twenty-one universities, is unevenly distributed. Some of them, particularly the older ones, have more than their fair share of the growing burden and may give way, if not relieved in time. If England (including Wales) has as many as twelve universities, India, in proportion to her size, should have anything between a hundred and fifty and two hundred. Numbers alone would not solve India's problem, as the

type of university and the quality of its work are of far greater importance than mere numbers. With her long and tiresome distances, her huge population and her extreme poverty, India cannot afford to do without universities of the affiliating type, and there is need for at least one affiliating university for each province. The remaining universities may choose to follow other models, such as the residential and the teaching types.

The regional universities which are in the offing, and which have been conceived on a linguistic basis, will naturally serve the needs of the several linguistic regions by assuming the form of affiliating and teaching universities. There would still be room for purely residential and teaching universities in each region. While the affiliating universities make provision for all possible branches of study, the residential and teaching universities can with advantage restrict their scope to special branches of learning and science for which they have the facilities. Taking the country as a whole, there would be need for co-ordination and co-operation among universities of the latter type. By their combined efforts they would be in a position to make a more valuable contribution to national life and progress and avoid wasteful duplication of work. Thus, one group of universities could specialize in engineering and mining, a second in agriculture and forestry, a third in chemistry and chemical technology, a fourth in physics and radiology, a fifth in biological and medical studies, a sixth in oriental languages and philosophy, and so on. On account of its vast extent India will doubtless need more than one centre for the study of each branch of science. With such a network, all branches of study and research known to the modern world could easily be covered, and the economic drain on the country's finances that is caused today by hundreds of our students going abroad every year for pursuing ordinary degree courses in cultural or professional subjects could be stopped, although it would still be necessary to send a few scholars for highly specialized study to countries which have

made a far greater advance than others in special branches of science and scholarship.

The aim of these centres of specialized study and research, which one hopes to see established in our country, should be to acquire international fame, so that students and scholars from different parts of the world outside India are attracted to them, as they were in the palmy days of the ancient Universities of Nalanda and Taxila. India has as much to give to other countries from her rich cultural heritage of philosophy, religion and literature as she has to take from their wealth of learning and scholarship. As for science, which is hedged in by no barriers except the limitations of the human intellect, and which has the use of the whole world as its laboratory and workshop, these new universities would be like collaborators in research working on a major problem of common interest in a huge scientific laboratory, comparing notes and results and assisting one another with the knowledge and experience gained by them in their specialized fields of work.

The first step is to see that the universities become fully autonomous bodies, unhampered by government control and fully representing the varied interests affected by, or affecting, their educational policy and programme. As the intellectual spearhead of the nation's advance, the universities must be the most enlightened of democratic institutions, serving as models of democratic government to political and civic bodies. It is significant that the system of proportional representation by means of the single transferable vote, which is now being adopted by democratic political constitutions in their elections, was first popularized by the universities in their domestic elections. Reorganized on an entirely democratic footing, the universities will not fail to command public confidence, which some of them, at any rate, are not enjoying today. It is only right that in the inner councils of the universities the teachers should have a predominant voice, as they have in Oxford and Cambridge, since they are the persons intimately con-

nected with teaching and research, and with the planning and execution of the programme of academic studies. Men of affairs should, no doubt, have a place on the executive councils and also on the supreme governing bodies of universities, as their advice and guidance would be helpful in guarding against financial blunders and overcoming practical difficulties, but they should not be in a position to override the purely academic view-point by the sheer force of numbers.

Once the constitutions of the universities are thoroughly democratized, there would be little further need for them to enlist public support by special efforts, as they would be of the people, for the people and managed by the people. Our universities have not yet seriously assumed the responsibility of carrying their message to the masses and the general public beyond their gates by means of extension or popular lectures or by pamphlets on current topics written by their teachers. These extra-mural activities are the best reminder to the public in a modern democracy of the work that is being done behind the high walls that enclose the academic groves and keep out the noise and dust of the market place in order to provide the quiet atmosphere so essential for study.

As sanctuaries of learning and scholarship, and as the training ground of the scientist and research worker, the universities have an irresistible claim on the financial support of the State. At the same time, in order that they may be free to follow their own plan of work without outside interference, the State's control over them should not extend beyond what is absolutely necessary for ensuring that its grants are utilized for the legitimate purposes of university education. The manner in which these grants are spent and the specific objects to which they are devoted should be left to the discretion of the universities. The State is also under an obligation to the universities for the direct assistance they render to it by tackling social and economic problems in their research departments or by collaborating with the national laboratories and other State departments in

the solution of problems relating to food, clothing, health, agriculture or industry. In the absence of national laboratories, some of the Indian universities rendered invaluable service to Government in the successful prosecution of the last War. The relationship between the universities and the State should be based on co-operation and collaboration, as between two equal partners in a joint enterprise.

III

The average product of the modern Indian university resembles a young tree removed from its original surroundings and replanted in alien soil. The traditions of ancient Indian or Islamic culture, as the case may be, which are the basis of our national life, do not reach him save through translations in a foreign tongue. The rich storehouses of Sanskrit, Arabic and Persian literature are shut out from his view, and he only glimpses a sparkling gem here or there, embedded in the folds of a piece of foreign apparel. Attracted by considerations of mere utility or by the comparative ease of studying a modern European language, he neglects the classical languages of this ancient land. The smattering of French, Italian, German or Spanish that he has acquired without much labour is easily forgotten, and he finds too late in life what a great opportunity he has missed by neglecting to study the one language which would have opened the door to the vast treasures of philosophy and poetry which have won the highest admiration of the world's scholars. Of course, there are still a few who study the classical languages of India either by accident or by virtue of family tradition.

Sanskrit and Arabic bear an even closer relation to Indian and Islamic culture respectively than Greek and Latin do to European culture as the religious beliefs, customs, laws and traditions of the Hindus and the Muslims are directly based on books written in those ancient languages. If the study of these two classical European

languages is considered indispensable in England and on the Continent as a basis for cultural studies, there is all the greater reason why Sanskrit and Arabic or Persian should be made compulsory subjects of study in Indian universities for all those whose mother-tongue draws its sustenance from one of these classical founts. This is the only sure as well as rational method of reviving the national culture of India. The next best means of achieving the same object is to make every Indian-born student learn at least one of the modern Indian languages which have their roots in these classical languages, so that he can get as near as possible to his national culture. This may sound too drastic a suggestion to our young men and women who are attracted by the fascinating study of science, but if our national freedom is to take root in its parent soil and the flower of national culture is to bloom once more in its pride this is the only way. The strongest argument that one could advance in support of regional universities is that they would be the best nurseries of national culture, provided that they guard themselves against the danger of developing a narrow, provincial outlook.

Indian history, not as a story of the succession of kings, the rise and fall of dynasties of rulers and the exploits of conquerors and generals or of successful or unsuccessful military strategy, but as the unfoldment of the social, economic and cultural development of the different races and peoples of India, their modes of life and thought and their contribution to civilization and progress, should also be a subject of compulsory study, taking its place by the side of the classical or the modern Indian language. If there is a dearth of suitable books of this kind, there are competent Indian scholars to write them. It is common knowledge that at present Indian history is studied as a voluntary subject in almost all the Indian universities, but what is advocated here is a new approach to the subject and also the need of making its study obligatory so that it becomes part and parcel of the mental equipment of the future cul-

tured citizen of India. The student of science will need it as much as the arts student, if not more, as a corrective to the specialized study he is embarking upon, which is apt to have a narrowing effect upon his general outlook on life.

Speaking of cultural subjects, it may be observed that it is unfortunate that in recent years there has been a marked decrease in the number of students taking up subjects like languages, literature, philosophy and history in our universities. This is in a large measure due to the growing popularity of the study of natural science, not so much on account of the scope it affords for advancing human knowledge as for its practical value in securing employment for them in factories, mills and other industrial enterprises. On the other hand, the only openings for the student of philosophy, languages or history are in the teaching profession or in research institutes, where the prospects of remuneration are none too bright. The study of these subjects is in imminent peril of being entirely neglected unless the salaries of teachers and persons engaged in departments of research like the Archaeological Department are materially improved. It is up to the State to see that this is done before it is too late. We should avoid the error into which many American universities have slipped by emphasizing the transient, utilitarian aspect of education at the expense of the abiding cultural values which are of its essence.

A word is necessary here about one branch of knowledge which has been sadly neglected by most Indian universities, viz., the fine arts of painting, sculpture, architecture and music. It is sometimes said that these arts are best cultivated in vocational schools, and that they have not acquired the status enjoyed by subjects of academic study. Those who say so forget that there are two distinct approaches to the fine arts, one higher and the other lower. They are commonly treated as vocational subjects requiring skill and application only, though there is a sufficient background of

theory, culture and idealism which raises these fine arts above the level of vocations. It is well known that there is a full-fledged university of music at Lucknow, and that statutory universities like those of Allahabad, (West) Punjab and Madras have instituted departments and diplomas of music. What is still wanting is a wider and more generous recognition of these fine arts by our universities.

The range of the subjects of study in the Indian universities is fairly wide, covering most of the recognized branches of knowledge, although there is still scope in many of them for the addition of the more recent branches of social science, such as social and political theory, sociology and anthropology. Fortunately, these universities have not lost their sense of values, as some American universities have done, by including subjects such as cookery and clothing in their curricula. They are certainly making considerable headway in the domain of natural science. Their departments of technology, though still young, are full of promise. The cost of equipping technological laboratories is, however, so high that without aid from the State and from industry the universities would not be in a position to start new departments or extend existing ones. The spirit of research, so characteristic of the scientific worker in the West, and which has earned for him the sobriquet of 'the monk of modern times' must 'possess' many more of our scientists before we can expect India's contribution to science to come anywhere near that of England, Germany or America. It is, nevertheless, the same spirit as that which inspired the sages of ancient India to continue their unremitting search for God through tribulation and suffering with single-minded devotion.

Judging by results, the progress of our universities in medical and technological research is far from satisfactory. We have little to show of original work in these subjects, as compared with research in pure science to which the scientific journals bear witness.

The paucity of medical research is due to the weakness in our system of medical education which is based on the English model. The English model is notoriously poor on the clinical side, and our hospitals which supply the clinical instruction and experience required for the pursuit of the medical profession are replicas, on a diminutive scale, of the London hospitals, where the instruction is eminently practical, but by no means highly scientific. The Americans and the Germans have outstripped the English in medical education and research mainly because the conception of a hospital is different in England from that in America or Germany. The English people look upon a hospital primarily as a charitable institution, while the Americans and the Germans look upon it as a university for the purpose of medical education, whose staff is recruited with an eye to education and research, and is expected to work in collaboration with the universities and their research workers.

In America this close relationship between the universities and the hospitals dates from the time of Mr Eliot who began the transformation of the Harvard Medical School in 1869 in accordance with his own ideas. If today it occupies an eminent position among the medical schools of the world, the credit belongs to him. At Harvard, Yale and Chicago it is the universities which choose the medical staff of the hospitals, and in doing so they naturally select the best qualified among teachers and research workers. Another important feature of medical education in America is that the professors and lecturers in the clinical subjects are full-time men, entirely devoted to teaching, research and the care of the hospital patients, and they are assisted by a competent part-time staff. There is no system of 'honorarys' as in England.¹ If our medical colleges and hospitals were reorganized on these lines, there

1. Flexner: *Universities, English, American, German*, pp. 86-87.

would be great hope for the future of medical study and research in our country.

The main defect in the technological education provided by the Indian universities is that the practical training essential for the making of a successful engineer or industrial chemist does not receive the attention it deserves. If technological training is to be effective and thorough, there must be a close and living touch between it and industrial production, as in Soviet Russia. In that country engineering students are required to undergo a year's practical training in an industrial factory or workshop, and they spend nearly a half of their total period of study working as paid apprentices in factories. India's economic future depends largely on the development of her vast material resources for which she will need a large army of technologists. She cannot do better than follow the example of Soviet Russia in regard to practical training, as the problems facing India today are the same as those which faced Soviet Russia before she embarked on her policy of economic planning.

There is an increasing volume of opinion in favour of introducing compulsory military training in the Indian universities. Without the active co-operation of the military authorities no scheme of compulsory military training can be worked. There were difficulties in obtaining such co-operation so long as India was under foreign rule. With the national Government in power at the centre as well as in the provinces, and the urgent need for organizing a national militia for the defence of the country in times of crises, the moment is now opportune for the Indian universities to press their demand for assistance from the Central Government to make military training compulsory for university students. No time should be lost in making a beginning in this direction, if India's new-won freedom is not to be placed in jeopardy for want of a well-organized national army. While it may take some time to work out the details of the scheme, the obvious step the

Central Government can take immediately is to add new battalions to the University Officers' Training Corps in those universities which have asked for them and are keen on giving such training to as large a number of students as possible. The Report of the National Cadet Corps Committee which has just been released is bound to be of great value in carrying the scheme through its earlier stages.

The University of Madras has recently decided to make it compulsory for all its students to put in a year of social service in rural areas as a condition precedent to the obtaining of a degree. The All-India Conference of Social Workers which met in Bombay recently has recommended that all the Indian universities should institute degree and diploma courses in social service. Some of the universities have such courses already, but they are of an optional nature. The experiment of compulsory social service introduced by the University of Madras, if it proves successful, may be adopted by the other universities.

IV

The close personal contact which should exist between teacher and student, if the latter is to derive the greatest benefit from a university education, is lacking in most of our universities, especially in those which have no residential system. As it is not possible to introduce the residential system on a much wider scale owing to the peculiar conditions in this country, some substitute is needed to provide opportunities for teachers and students to get to know one another more intimately. Social activities, sports and games and other extra-curricular activities which afford these opportunities require to be further encouraged and popularized. Even in the class-room, where the classes are small, the teacher can occasionally relax and enter into informal talks about familiar things, revealing new facets of his personality and mode of life and thought,

and thus encourage individual students to go to him in the privacy of his study for help and advice in the solution of their problems. The correction of essays periodically written by students provides similar opportunities, but the practice seems to have fallen into undeserved neglect in some universities on account of the difficulty of coping with the increasing numbers of students and the unwieldiness of classes. The imposing of limits on numbers is, therefore, a very urgent reform, but it can only be effected if there is a substantial increase in the numbers of colleges.

No teacher can inspire his students unless he possesses the qualities of a good teacher, and his learning and scholarship command their respect. This is possible only if teachers are properly recruited under the advice of impartial and competent selecting authorities. Even the latter cannot select the right type of teacher unless the conditions and salary offered compare favourably with those offered in other avenues of employment to persons holding similar qualifications, for the number of individuals prepared to work on a basis of self-sacrifice is at best very limited in any community. The universities can take the lead in solving this problem of improving the status and financial condition of the teaching profession by setting an example in the case of their own employees. They could then bring pressure to bear on Government to increase their grants to the colleges to enable them to meet the additional expense of higher salary bills.

V

The majority of students in the Indian universities come from families which are unable to maintain them at a college or a university or to provide them with the facilities for study except at a great sacrifice from their meagre income. Some of them have no support of any kind, and cannot continue their studies without scholarships or other financial aid from public funds or endow-

ments. In an ideal State all education should be free, but the finances of the Indian Government are incapable of bearing the entire burden owing to the increasing number of students seeking a university education. The problem of the poor student would be solved to some extent if even a third of the total number of students were assisted with scholarships or maintenance grants from public funds as recommended by the Central Advisory Board of Education. Wealthy philanthropists should be persuaded to come forward with substantial endowments to supplement these grants.

The migration of students from one university to another needs to be facilitated by mutual recognition among the Indian universities of terms kept by students, as in Scotland and Germany. This would bring about a feeling of solidarity among the universities which is desirable in the larger national interest, especially at a time when provincialism threatens to create barriers of various kinds between different provinces and linguistic regions. It would also solve the problem which faces the children of government employees, transferred from one province to another owing to the exigencies of service.

The Central Advisory Board of Education has criticized Indian universities for not making any systematic attempt to adjust their output to the employment market, and has pointed out that their activities are not sufficiently related to the practical needs of the people.² With the greatest respect it is submitted that this criticism proceeds upon a mistaken conception of the true function of university education. The moment a university begins to plan its courses, not with a view to providing a liberal education, or spreading and advancing knowledge, but to supplying the needs of the employment market, it steps down from its high status and function to the level of the shopkeeper, and ceases

2. See Report by the Central Advisory Board of Education on Post-war Educational Development in India, 1944, p. 28.

to be worthy of its inherently noble mission. The problems of unemployment and unsuitable employment are economic questions which can and must be tackled in other ways, but they should not be allowed to interfere with the high aims and ideals of university education. The establishment of Appointments Boards to help their *alumni* to obtain employment suitable to their qualifications and training is the farthest point to which universities can go, without compromising their position, for it is none of their business to train up men on lines which are indicated by employers to suit their own purposes.

The other defects to which the Central Advisory Board has invited attention, viz., the undue importance attached to examinations and book-learning and the neglect of the faculties of original thinking and independent judgment are genuine defects which must be removed, but they will not take long to disappear if the universities realize that their chief aim should be, not to manufacture degree-holders by the thousand, but "to foster the traits and characteristics of mind or abilities of thinking effectively, communicating thought, making relevant judgments and discriminating among values", to quote the words of the Report of the Harvard Committee on General Education in a Free Society.³

VI

One of the burning topics of the hour is the question as to what should be the medium of instruction in Indian universities, and especially whether the mother-tongue should not replace English which is the present medium in almost all of them. One of the strongest arguments urged in support of the establishment of regional universities is that they would help to foster the so-called culture of the linguistic region as well as its language and literature. The protagonists of 'regional' or 'ling-

3. *Vide*, p. 64 of the Report.

uistic' culture want the prevailing language of the region to be adopted as the medium of instruction at the university stage. It is, however, worth noting that the Maharashtra University Committee's Report (1943) does not recommend that Marathi, the language of the region, should be made the medium of instruction by enactment, but leaves it to the University to decide the question after it comes into existence. It is also a significant fact that the Universities of Mysore, Annamalai and Andhra, which were really intended to serve the linguistic areas of Kannada, Tamil and Telugu speaking populations, have not yet introduced these languages as media of instruction. The inevitable conclusion is that the question bristles with difficulties.

Before discussing the question of the language, we may examine the so-called 'regional culture' a little more closely. While it is possible to distinguish the regional culture of, say, England from that of France or Germany, to claim distinct regional cultures for provinces like Maharashtra, Gujarat, Karnatak, Kerala, Andhra Desha or Tamil Nad is to misread the meaning of the word 'culture'. Without attempting a logical definition of the term, it is enough for our present purpose to accept the definition given by Ortega Gasset, viz., that it is "the vital system of ideas of a period". Thus, when we speak of Indian culture we mean the traditions of religion and philosophy, the general mode of life, the repertory of convictions and beliefs, and the outlook upon life of the people of India as a whole. In this sense it is difficult to understand in what respects the Maharashtrians, for instance, can be said to have a different culture from the people of the Karnatak or those of Gujarat. A difference in language or literature, or in local customs is not necessarily the same as a difference in culture. To quote Srimati Sarojini Naidu, "India is one and indivisible. While her children speak with many tongues, they can only speak with one, undivided heart. . . . because it so happens that however different the languages are and however differently

derived and differently sustained and expanded and enriched, the basic thought underlying every language, the one common unifying thought, ideal and focus, has been the mythology of India, the ancient lore of India, the ancient songs of India; and they extend from the banks of the Brahmaputra to Cape Comorin."⁴

The difference, if any, in the mode of life, customs, manner of speech, between the people of Maharashtra, Karnatak, Gujarat, the United Provinces and Bengal is of a superficial character, and does not affect the fundamental cultural unity. The term 'regional' or 'linguistic' culture when applied to these regions is, therefore, a misnomer.

If it is the intention of the advocates of the so-called linguistic cultures to encourage the growth of the language and literature of the several regions, there are surely other ways of doing so than by making the language, or one of the languages, of the region the medium of instruction in the university. The university could, for example, create special chairs for the teaching of the regional language and literature, offer special prizes and scholarships, make generous publication and research grants, establish research institutes for the study of the history, archaeology and social institutions relating to the region. If a provincial language is adopted as the medium of instruction, students from other provinces will be prevented from migrating to a university by the language difficulty, even if they are keen on taking advantage of any specialized courses it may offer. The frequent interchange of students and teachers among the Indian universities would be rendered difficult, if not impossible. Instead of expanding the mental horizon of the student the education given in such a university would narrow his mind. What we all want in the India of the future is not the cramp-

4. Presidential Address at the First All-India Writers' P.E.N. Conference, Jaipur, 1945. See Proceedings, edited by K. R. Srinivasa Iyengar (The International Book House, Bombay) p. 14.

ing effect of a provincial outlook, but the liberalizing influence of a broad-based culture which will cement the different provinces of India into a single political, psychological and spiritual entity. The barriers of language which prevent the free interchange of thought and sentiment between the residents of different provinces need to be removed rather than strengthened. In their place there should be a highway of a common language allowing of a free interchange of intellectual traffic. A free Indian Union, in keeping with the tradition of unity which it has cherished, will thrive better in conditions favouring a free trade in ideas rather than tariff walls between the provinces.

Until India develops a common language for official use as well as for the purposes of education, fit to take the place of English, which has held the field for over a century and a half, if we discard English in favour of different provincial languages, we shall be hampering the smooth running of the administrative machinery of the Central and Provincial Governments, as well as creating disruptive forces which may do harm to the integrity of the Indian union. The note of warning sounded by Maulana Abul Kalam Azad, Education Minister of the Indian Union, in his address to the Patna University Convocation (1947) is a timely one. After pointing out that English was serving the purpose of an inter-provincial language and that the Central Government was being run with its help, he observed: "You will naturally say that we should have a common language instead of English. But where is that language yet? Will that language suddenly replace English? Ample time will be required for an Indian language to develop so as to become a vehicle of thought among all the peoples of India and serve as the official language of the country." He suggested that the Central and Provincial Governments should use for a period of five years an Indian language side by side with English so that at the end of that period it might replace English completely.

Before the new regional universities take a decision on the question of the medium of instruction they should adopt, they need to consider the matter dispassionately in all its bearings, and especially from the point of view indicated by the Education Minister. They should not allow any prejudice there may be against British rule to obscure the fact that the English language has proved to be a unifying influence among educated Indians. It is worth while for them to ponder over the wise words of the Education Minister which convey the truth, however unpalatable it may be, that English, through becoming the world's commercial *lingua franca*, has come to serve as a powerful unifying factor, not only in India, but between the world's universities.⁵ The higher the level of instruction and research, the greater is the need of a language with a universal, or at least an inter-provincial, appeal. The regional universities will have to choose between a language which will strengthen the bond of intellectual fellowship between Indians all over India, if not between Indians and the members of other nationalities, and a language which will sever that bond in an attempt to knit together a little more closely a very much smaller group of people who speak it as their mother-tongue.

VII

It is to be hoped that the Government of India will lose no time in taking action on the advice of the Central Advisory Board of Education in India, reinforced by the recommendation of the Inter-University Board, by appointing, in consultation with the Provincial Governments, a Commission on the lines of the Sadler Commission to review the work of the Indian universities and report on Indian university education, suggesting improvements and extensions to suit the present and

5. See Edward Bradby (Ed.): *The University Outside Europe* (O.U.P.), p. 33.

future requirements of the country.⁶ Much water has flowed down the Ganges since the publication of the Report of the Sadler Commission. We are just emerging from the flames of the greatest war that has overtaken humanity. A much vaunted civilization, based on the progress of materialism and science, has narrowly escaped complete destruction. The civilized world is trying to regain its equilibrium and recover its lost values. Once again, it is dawning upon men's minds that unless the nations of the world are prepared to lift their national aspirations to the higher plane of international well-being, understanding, amity and goodwill by cultural exchange and intellectual co-operation, the future of the world will be enveloped in gloom. India has grown to the full height of an independent nation which has taken its rightful place in the assembly of nations, but her freedom has brought new problems to her threshold. While her educational progress must not be hindered in its onward march, she may well pause and consider whether any step that may even remotely weaken the bonds between her provinces *inter se* or between her and the outside world, should not be postponed until its full implications are carefully examined. The question of adopting a regional language as the medium of instruction at the university stage is one such step, and may well await the report of the Commission contemplated in the resolution of the Central Advisory Board of Education.

6. See Resolution on Item XVII of the Agenda of the Central Advisory Board of Education in India, p. 18 of the Proceedings of the 13th Meeting of the Board held in Bombay in January 1947.

BIBLIOGRAPHY

A

- | | | |
|--|----|--|
| ALTEKAR, A. S. .. | .. | <i>Education in Ancient India.</i>
Benares, 1934. |
| BASU, ANATHNATH | .. | <i>University Education in India.</i>
Calcutta, 1944. |
| BERNAL, J. D. .. | .. | <i>The Social Function of Science.</i>
London, 1939. |
| BRADBY, EDWARD | .. | <i>The University Outside Europe.</i>
Oxford, 1939. |
| BRUMM, JOHN LEWIS
(ED.) | .. | <i>Educational Problems in Col-
lege and University.</i> Ann
Arbor, 1921. |
| CANFIELD, J A M E S
HULME | .. | <i>The College Student and his
Problems.</i> New York, 1902. |
| CLARKE, F. .. | .. | <i>Education and Social Change.</i>
London, 1940. |
| DELLER, EDWIN | .. | <i>Tendencies in University Edu-
cation (being the First John
Adams Lecture).</i> London, 1933.
<i>Universities in the United
States.</i> London, 1927. |
| DRAPER, WILLIAMS H. .. | .. | <i>University Extension: A Sur-
vey of Fifty Years, (1873-1923).</i>
Cambridge, 1923. |
| FISHER, H. A. L. .. | .. | <i>The Place of the University in
National Life.</i> Oxford, 1919. |
| FLEXNER, ABRAHAM .. | .. | <i>Universities, American, Eng-
lish, German.</i> New York, 1930. |
| G A S S E T, J O S É
ORTEGA Y | .. | <i>Mission of the University</i>
(translated by Howard Lee
Nostrand). 1946. |

- GHURYE, G. Ś. *Culture and Society*. Bombay, 1947.
- GOOD, CARTER V. *Teaching in College and University*. Baltimore, 1929.
- HALDANE, R. B. (VIS-COUNT) *Universities and National Life*. London, 1911.
- HALL-QUEST, ALFRED *The University Afield*. New York, 1926.
- HARTSHORNE, EDWARD YARNALL (JR.) *The German Universities and National Socialism*. London, 1937.
- HASKINS, C. H. *The Rise of Universities*. New York, 1940.
- HERKLOTS, H. G. G. *The New Universities*. London, 1928.
- HUBER, VICTOR AIME *The English Universities* (Abridged translation edited by F. W. Newman), 2 vols. London, 1843.
- HUMBERSTONE, THOMAS LLOYD *University Reform in London*. London, 1926.
- KANE, P. V. *History of Dharmashastra*, Vols. II and III. Poona, 1941-47.
- KERR, J. *Scottish Education: School and University*. Cambridge, 1913.
- KOTSCHNIG, WALTER M. & PRYS, ELINED (EDS.) *The University in a Changing World*. London, 1932.
- LINK, H. C. *Education and Industry*. New York, 1923.
- LOWE, A. *Universities in Transformation*. London, 1940.
- MARSHALL, SIR JOHN *A Guide to Takshasila*. Delhi, 1936.
- MAYHEW, A. *The Education of India*. London, 1926.

- MORRISON, S A M U E L · *Three Centuries of Harvard Eliot* (1636-1936). Cambridge (Mass.), 1937.
- N E W M A N, J O H N · *The Idea of a University*. London, 1912.
- N E W T O N, A R T H U R · *The Universities and Educational Systems of the British Empire*. London, 1924.
- PANNIKAR, K. M. .. *A Survey of Indian History*. Bombay, 1947.
- PATTISON, MARK .. *Suggestions on Academic Organization: Essays on the Endowment of Research*.
- RASHDALL, HASTINGS .. *The Universities of Europe in the Middle Ages*. (New Edition), 3 Vols. Eds. Sir Maurice Powicke and A. B. Emden, 1936.
- ROBERTSON, CHARLES GRANT .. *Humanism and Technology*. 1925.
- .. *The British Universities*. London, 1944.
- ROBERTSON, D A V I D · *American Universities and Allan (Ed.)* *Colleges*. New York, 1928.
- SANKALIA, H. D. .. *The University of Nalanda*. Madras, 1934.
- SHESHADRI, P. .. *The Universities of India*. London, 1935.
- SIMON, BRIAN .. *A Student's View of the Universities*. London, 1944.
- TILLYARD, A L F R E D · *A History of University Reform from 1800 A.D. to the present time, with suggestions towards a complete scheme for the University of Cambridge*. Cambridge, 1913.
- ISAAC
- TREVELYAN, G. M. .. *English Social History*, 1944.

- TRUSCOT, BRUCE .. *Red Brick University*. London, 1945.
Red Brick and These Vital Days. London, 1944.
First Year at the University. London, 1946.

B

- Academic Freedom Committee, Report of the Conference on Academic Freedom. Cambridge, 1935.
 Board of Education, Report of the Departmental Committee on the University of London. London, 1926.
 Bombay, University of, Committee on University Reform. Bombay, 1925.
 Calcutta, University of, Report of the University Commission, 1919.
 Central Advisory Board of Education, Report on Post-War Educational Development in India. Delhi, 1944.
 Education Bureau, Government of India, The Essentials of University Education in a great centre of population. Calcutta, 1917.
 Harvard University, Report of the Harvard Committee on General Education in a Free Society. Harvard, 1945.
 Indian Statutory Commission, Auxiliary Committee of the, Review of the Growth of Education in British India (Hartog Report), 1929.
 Inter-University Board, Handbook of Indian Universities, 1942.
 Maharashtra University Committee, Report of the, 1943.
 Punjab, University of the, Report of the Enquiry Committee, 1933.
 Royal Commission on University Education in Wales, Final Report of the Commissioners. London 1918.
 Royal Commission on University Education in London, Final Report (Chairman, Haldane). London, 1913.

- Royal Commission on Oxford and Cambridge Universities,
Report of the Commissioners. London, 1918.
- Royal Commission on the University of Durham, Report.
London, 1935.
- Universities, Indian, Bill to amend the law relating to the
Universities of British India and Report of the Select
Committee, 1904.
- Papers connected with the establishment of Universities in
India (Government of India Publication). Calcutta, 1857.
- Report of the Indian Universities Commission, 1902. Madras,
1902.
- Universities Bureau of the British Empire, Yearbook of the
Universities of the Empire. London, 1947.

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neering, technical and industrial chemistry and pharmaceutical chemistry. It has also made special provision for the study of the Hindu scriptures and the ancient Ayurvedic system of medicine. Its constitution provides that all members of the court or governing body, and at least three-fourths of the members of the senate or academic body, shall be Hindus, which is a rather unfortunate feature for an educational institution of university status. Aligarh Muslim University provides courses in theology, and has special arrangements for the residence and education of its women students on account of the prevailing *purdah* system. Dacca University has embodied in its constitution the disruptive principle of separate electorates for Muslims so that their representation on the several university bodies is ensured. The principle of communal representation, which has been detrimental to the growth of friendly feelings and a better understanding between the two great Indian communities in the domain of politics, has fortunately been kept out of the constitutions of the younger universities, save that of Sind. It is to be hoped that it will be abandoned when the Sind University Act is amended, and that an early occasion will be taken for doing this.

Delhi University has been the first to do away with the Intermediate examination, and to curtail the length of its degree course from four years to three, adding one of the years thus dropped to the secondary school course. In doing so it has given effect to one of the recommendations of the Central Advisory Board. How far this change is likely to be adopted by the other Indian universities is yet to be seen.

Andhra University, the first regional university established on a linguistic basis (for the Telugu area), has a number of colleges affiliated to it, including one for women. Agra University was created solely for the purpose of taking over all the colleges previously affiliated to Allahabad University, when the latter became a teaching and residential university. Its jurisdiction ex-